

Environment & Climate News

©2003 The Heartland Institute

The Monthly Newspaper For Common-Sense Environmentalists

Vol. 6 No. 1 - January 2003

November Elections A Victory for Common-Sense Environmentalism

BY JAMES M. TAYLOR

At both the federal and state levels, the November 2002 elections revealed voters are no longer swayed by the scare tactics and anti-business rhetoric of the country's leading environmental advocacy groups. The changes to the political landscape could have major implications for how environmental issues will be debated and resolved in the coming years.

Republicans on the Environment

With a few notable exceptions, Northeastern legislators of both parties in Congress and state legislatures tend to favor a larger government role in addressing environment issues and are likely to side with command-and-control approaches. The same holds true for much of the West Coast. Legislators in the rest of the country—that wide swath of red on the 2000 election maps known as Bush country—tend to favor market-based solutions and see people as active stewards of the land rather than hands-off preservationists.

Republicans, even accounting for the regional

ELECTION continued on page 16



Ryan Madera (left) and Mike Lovas grab brooms to celebrate Republicans' near-sweep in Minnesota elections. Nationwide, Republican victories signalled a renewed interest in free-market, sound-science approaches to environment issues. Photo by Bill Alkofer/Getty Images

EPA Restores Flexibility to New Source Review

BY JAMES M. TAYLOR

Giving power plants, refineries, and factories will have greater flexibility in updating their equipment and meeting Clean Air Act requirements, the Bush administration announced November 22. The changes affect the federal government's interpretation of the New Source Review provisions of the Clean Air Act.

NSR Mandates

The Clean Air Act of 1970 (CAA) required newly constructed industrial plants and utilities to install the best available pollution-abatement

technology. In 1977 amendments to the CAA, Congress created New Source Review to reduce air pollution from existing facilities. The program requires existing facilities to update their pollution abatement technologies whenever undergoing a major expansion or refurbishment that would result in significant emission increases.

From their inception, EPA interpreted and enforced the New Source Review mandates according to the plain language of the statute. Periodic maintenance, repairs, and routine upgrades did not subject facilities to mandatory pollution technology upgrades.

In 1999, however, the Clinton EPA embarked on an unprecedented departure from the plain language interpretation of New Source Review mandates. Although Congress had intended New Source Review to apply only to major projects that increase air emissions, EPA began calculating emission "increases" in a manner such that common maintenance, routine repairs, and routine upgrades subjected existing facilities to costly, mandatory technology overhauls.

The Clinton-era mandates took American

NSR continued on page 13

Soot May Be Major Greenhouse Factor, New Study Says

BY FRED SINGER

A new study on the role atmospheric soot particles may play in global warming suggests a new near-term control strategy, introduces a new element of uncertainty in climate models, and shifts more responsibility for curbing pollution to developing nations such as China and India.

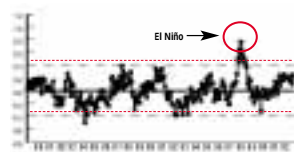
SOOT continued on page 15

INSIDE E & C N

- 2 EPA Diesel Study Targets Old Tech
- 3 Science, Politics Strange Bedfellows
- 4 Ideas Shared on Climate Change
- 6 No Consensus on Warming Science
- 8 Drought Not Due to Global Warming
- 10 Africans Reject GM Corn
- 12 EPA: Air Quality Is Improving
- 17 Book Review: *Water Follies*

Is this global warming?

GLOBAL TEMPERATURES



Each month, Earth Track updates the global averaged monthly satellite measurements of the Earth's temperature. See page 7

The Heartland Institute
19 South LaSalle #903
Chicago, IL 60603

PRESORTED
STANDARD
US POSTAGE PAID
BEAVER DAM, WI
PERMIT NO. 412

Environment & Climate News

EDITORIAL OFFICES



The Heartland Institute

19 South LaSalle, Suite 903

Chicago, Illinois 60603

312/377-4000 voice • 312/377-5000 fax

email think@heartland.org

Environment & Climate News is available on the Internet. Point your web browser to <http://www.heartland.org>.

Additional, regularly updated information on global climate change is available at climatesearch.com

PRESIDENT
Joseph L. Bast

PUBLISHER
Nikki Saret

EDITOR
Diane Carol Bast

MANAGING EDITOR
James M. Taylor

SCIENCE DIRECTOR
Jay Lehr Ph.D.

DESIGN AND PRODUCTION
Kevin Fitzgerald
Jennifer Beranek

ADVERTISING MANAGER
Nikki Saret

CIRCULATION MANAGER
Latreece Vankinscott

CONTRIBUTING AUTHORS
Brian Bishop, Wendell Cox, Paul K. Driessen
James D. Johnston, Jay Lehr, Nick Nichols
Randal O'Toole, S. Fred Singer
Jerry Taylor, Dan Thomas, Ronald Utt

BOARD OF DIRECTORS
Joseph Bast, Walt Buchholtz, Robert Buford
Paul Fisher, James Fitzgerald, Dan Hales
William Higginson, James L. Johnston
Ross Kaminsky, Roy E. Marden
David H. Padden, Frank Resnik
Leslie Rose, Robert Russell
John Skorburg, Herbert J. Walberg Ph.D.
Lee H. Walker, Tom Walton

Environment & Climate News is published 10 times per year by The Heartland Institute. Subscriptions are free to U.S. residents and \$24 per year for foreign residents. Order online at www.heartland.org. Heartland is a non-profit and nonpartisan public policy research organization serving the nation's federal and state elected officials, journalists, Heartland Members, and other opinion leaders. Its activities are tax-exempt under Section 501(c)(3) of the Internal Revenue Code.

© 2003 The Heartland Institute. Nothing in this issue of **Environment & Climate News** should be construed as reflecting the views of The Heartland Institute, nor as an attempt to aid or hinder the passage of any legislation.

EPA Study of Diesel Health Effects Targets Past, Not Present or Future

BY JAMES M. TAYLOR

Chronic exposure to emissions from older diesel technology is linked to increased rates of lung cancer, the U.S. Environmental Protection Agency reported on September 3.

Proponents of alternative energy sources praised the report as a call to action for tougher emission standards for cars and trucks and development of renewable energy sources. However, industry sources and pro-growth environmentalists pointed out the study addressed obsolete technology and failed to quantify the asserted link between diesel emissions and health effects.

EPA's 651-page diesel health assessment report was based on a series of occupational health studies and animal exposure tests of older diesel technology. The report concluded that although uncertainties exist, "it is reasonable to presume that the hazard extends to environmental exposure levels as well." Such exposure would have to be long-term, according to EPA, to cause respiratory problems such as lung cancer.

"Overall, the evidence for a potential cancer hazard to humans resulting from chronic inhalation exposure to [diesel emissions] is persuasive," stated the report.

But Dr. William Bunn, vice president and chief medical officer for International Truck and Engine Corporation, told *Environment & Climate News*, "The EPA report actually concludes that the true risk from diesel exposure could be zero, given the great uncertainties in the scientific data.

"Based on recommendations by the agency's independent Clean Air Scientific Advisory Committee," continued Bunn, "the health assessment report recognizes the great scientific uncertainty in the diesel health effects database and concludes that no quantitative determination of the level of risk can be justified at this time.

"This is an unusual and important finding," Bunn concluded, "because numerical measures of risk are considered essential to conclude that a substance poses a serious public health concern."

Focus on Old Technology

The Diesel Technology Forum also questioned the EPA report's relevancy to public health today. "The Environmental Protection Agency's new report on diesel emissions is an appraisal of past diesel technology, drawing on data collected before the Clean Air Act—primarily during the 1950s, '60s and '70s—rather than an assessment of today's clean diesel technology," said the Forum.

The *Washington Post* observed that newer generations of diesel engines will be safer than today's. "The study, involving tests on occupational exposure and on animals, focused on diesel engines manufactured before the mid-1990s, when the government began pressing for tougher emission standards," reported the *Post*. "With new engine and fuel technology

expected to produce significantly cleaner engine exhaust by 2007, experts project a 90 percent reduction, from today's levels, in health-threatening exhaust particles from on-road vehicles."

"The agency expects significant environmental and public health benefits as the environmental performance of diesel engines and diesel fuel improves," acknowledged Paul Gilman of the EPA Office of Research and Development.

FOR MORE INFORMATION

WWW More information on EPA's September 3 diesel health assessment is available on the Internet at <http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060>. An executive summary and the complete text of the 669-page report are available through PolicyBot. Point your Web browser to www.heartland.org, click on the PolicyBot icon, and search for documents #10899 (front matter and executive summary, 30pp.) and #10900 (full text, 669pp., 9.2mb).

"[EPA's] new report on diesel emissions is an appraisal of past diesel technology, drawing on data collected ... primarily during the 1950s, '60s and '70s—rather than an assessment of today's clean diesel technology."

Greener Future

"While the report focused on the past, the future is clean diesel: Diesel trucks and buses built today are more than eight times cleaner than just a dozen years ago," said Allen Schaeffer, executive director of the Diesel Technology Forum. "Thanks to state-of-the-

art engine designs, cleaner-burning fuels, and effective emissions-control systems, diesel technology has progressed by quantum leaps over the past 30 years—and will continue to improve its emissions performance in the future."

Schaeffer noted that with cleaner fuels, emissions treatment systems, and advanced engine technology, diesel trucks and buses are approaching the environmental performance levels of alternative fuels. A recent test by the California Air Resources Board found a clean diesel bus running on low sulfur fuel and equipped with the latest emissions-control technology outperformed a natural-gas-powered bus on eight of 11 emissions tests.

"The health assessment also concludes—based largely on studies of workers in jobs with prolonged exposure to diesel exhaust 30 to 50 years ago—that diesel exhaust is 'likely' to be carcinogenic to humans," the Technology Forum added in its public statement. "However, after exhaustive research, EPA found insufficient scientific evidence to quantify a relationship between diesel exhaust exposure and lung cancer. The report does note that its findings are based on exposures to engines which did not meet today's high emission standards, and which occurred in the workplace settings of another era."

"Working behind the scenes, diesel technology has become an irreplaceable part of the U.S. economy and our quality of life," said Schaeffer. Two-thirds of all farm equipment runs on diesel, and diesel-powered trucks, trains, boats, and barges move 94 percent of the nation's goods—more than 18 million tons of freight each day. "For many applications, there is no alternative to diesel. That's why manufacturers and fuel refiners are working overtime to continue reducing emissions from this vital technology," he concluded.

James M. Taylor is managing editor of *Environment & Climate News*.

EPA Cuts Deal on Tougher Ozone Standard

The Environmental Protection Agency has reached an out-of-court settlement with nine plaintiffs, including the Sierra Club, Environmental Defense, and Alliance for Clean Energy, to strictly enforce tough ozone regulations drafted by the Clinton administration.

The settlement, announced on November 13, requires EPA to demand more comprehensive data from individual states regarding their compliance with federal ozone standards. EPA will then analyze the data to identify any need for enforcement actions.

Regulations drafted in 1997 limited atmospheric ozone levels to 0.08 parts per million, down from the previous

standard of 0.12 parts per million. The regulations also required ozone measurements to be taken over an eight-hour period rather than a one-hour period.

EPA had yet to enforce the new standards, largely because of Bush administration concerns that the Clinton-era standards were too strict. However, under pressure from the pending lawsuit, the Bush EPA has said it will vigorously enforce the tighter standards.

Under the terms of the settlement, EPA will determine by April 2004 which areas of the country have failed to meet the new ozone standards. EPA will also require individual states to identify all counties that have failed to meet the new standards.

The Politicization of Science

BY MICHAEL GOUGH AND JEFF KUETER

Science and politics make strange bedfellows.

In science, facts are reality. A noted TV commentator observed, "The measure of good science ... is the immersion of hypotheses into the acid of truth."

In politics, perceptions are reality and facts are negotiable. This is the case because politics involves competing interests, conflicting objectives, trade-offs, and personal values. In a world where there is more gray than black, it is all too easy to "bend the truth" and "selectively interpret" facts to shape outcomes.

In a forthcoming book prepared by the George Marshall Institute, leading scientists from a variety of disciplines involved in environmental issues share experiences and observations about the manipulation of science for political ends. The essays describe politicization: misapplication or outright manipulation of the scientific record to advance policy agendas. These actions have consequences, which are borne by everyday citizens, not those who politicize at the expense of objectivity.

Politicization: Obvious, and Less So

Politicization is most clearly on display when government officials directly interfere in the

collection, interpretation, and presentation of data. The book details examples from highly publicized environmental issues: spotted owls, lynxes, the reintroduction of wolves into Yellowstone National Park, and resolution of conflicting water claims in the Klamath Basin. In all of them, there is evidence that government officials intentionally selected results, misinterpreted observations, and interfered with experiments to advance their goals.

"Sound public policy cannot be developed by skipping over the fact that we live in a world of trade-offs and actions have consequences."

Less obvious is the burnishing and promoting of risks undertaken by some government agencies and interest groups to increase their power and importance. That kind of politicization is more common.

Politicization efforts depend on political techniques—press conferences, legislative

hearings, and splashy news releases—to attract public and media attention. The media, with its interest in attracting readers or viewers, feeds the public's apparently insatiable appetite for news about risks and amplifies the politicization efforts.

For example, in the early 1990s, a small group of scientist-activists asserted that plastics and industrial chemicals acted as "endocrine disruptors" or "environmental estrogens" that disrupt the normal functioning of hormones, affecting almost every aspect of human and animal development. The media seized the issue and trumpeted mostly unverified observations, speculations, and a scientific paper that was not reproducible and eventually found to be fraudulent. Still, Congress rushed legislation requiring billions be spent testing chemicals otherwise considered safe except for their alleged estrogenic effects. When the facts became public, it made no difference to government policy. The chemical testing continues and the costs are passed on to consumers every day.

The media, along with government agencies and interest groups, play prominent roles in hyping the alleged human health risks of environmental chemicals and of nuclear power. Authors of a number of the book's chapters ana-

lyze those risks objectively and demonstrate how they are often exaggerated and, in some cases, may be non-existent.

When a risk is politically important and the science uncertain, policymakers want to appear to be doing something rather than waiting on more certain results. They often turn to scientific committees. The outcome from most such committees is a consensus report, which in the words of one noted analyst "... can provide only an illusion of certainty." A committee's recommendations are often based on far-from-certain science and driven by social dynamics that can substitute the value of group-think for independent, critical thinking.

Better policy decisions and better use of society's resources will come from the examination of all available science that is carried out in ways that encourage critical thinking by scientists and policymakers. This can be accomplished by demanding transparency concerning the use of scientific information in policymaking; encouraging conflicting opinions, rather than consensus, in the scientific advisory process; and basing policy on accurate assessments of risk.

Sound public policy cannot be developed by skipping over the fact that we live in a world of trade-offs and actions have consequences.

Michael Gough is editor of The Alchemy of Policy Making: Political Manipulation of Science. Jeff Kueter is executive director of the George Marshall Institute.



Yes! I want to help the Marshall Institute promote impartial science in public policy debates.

The George Marshall Institute encourages the use of sound science in making public policy. Drawing on a distinguished network of scientists, the Institute offers unbiased and scientifically accurate assessments of the meaning of scientific and technical advances for policy making.

You can become a Sponsor of the Marshall Institute. Your membership contribution will help us continue to bring good science to public policy. Few groups with the stature of the Marshall Institute's Board of Directors focus exclusively on how new scientific findings impact policy making decisions. Join us in supporting the integrity of science in the policy process.

Contact Us

202.296.9655 • info@marshall.org • <http://www.marshall.org>

GEORGE C.
Marshall
I N S T I T U T E

The Marshall Institute – Science for Better Public Policy

Areas of Interest:

Global Climate Change
Missile Defense
Defense Technology
Bioterrorism
Environmental Policy
Politicization of Science



Conference Highlights Voluntary Actions on Climate Change

BY JAMES M. TAYLOR

A major international conference held November 20-21 in Houston, Texas brought together an impressive array of scientists, federal officials, non-government action groups, and industry leaders to share ideas and report on progress in climate change science.

Voluntary actions by the oil and gas industry are creating breakthrough technologies and making a significant contribution to global efforts to reduce greenhouse gas emissions, participants reported at the Second API Conference on Voluntary Actions By the Oil and Gas Industry to Address Climate Change.

European Perspective

John Campbell, technical director for the International Association of Oil and Gas Producers (IOGP), kicked off the conference by offering a European perspective on the global climate issue. Campbell noted the IOGP itself

does not have a climate change policy, as its members have diverse interests. However, Europeans generally take pride in demonstrating leadership on greenhouse gas issues. They are, therefore, seeking mandatory cuts in greenhouse gas emissions, applying to most European nations by 2005.

Foreshadowing a major theme of the API conference, Campbell asserted that depleted gas and oil wells offer promise for sequestering carbon dioxide (CO₂), the primary target of greenhouse gas limits. Technological advances are not the only hurdle in the path of widespread CO₂ sequestration. "The technical solutions themselves do not necessarily lead to legal feasibility," Campbell observed. Indeed, according to Campbell, the legal obstacles are "as daunting as the technological issues."

According to Campbell, most CO₂ sequestration opportunities exist in depleted offshore wells. However, those wells are subject to inter-

national environmental treaties as well as the Law of the Sea treaty. Even if CO₂ sequestration becomes a viable technological option in the near future, an international consensus will have to develop on related legal issues.

Science Outpacing Politics

"We can't wait 50 years for permits to inject CO₂ into the ground," responded Craig Lewis, a senior staff scientist in the Chevron/Texaco Process Technology Unit. "We don't need another Yucca Mountain situation," referring to the long-delayed repository for spent nuclear fuel in Nevada.

"Natural CO₂ fields have held CO₂ reservoirs for millions of years. We can learn a lot researching these fields," Lewis stated.

Like many of the conference participants, Lewis was wary of injecting CO₂ directly into the ocean depths. However, he noted CO₂ dissolves in water and can be stored in natural underground chambers. Moreover, CO₂ can interact with certain silicates to become a permanent part of subterranean rocks.

Sequestration of a sizeable portion of U.S. CO₂ emissions is technologically feasible, according to Lewis, but would require an infrastructure comparable to America's natural gas infrastructure. "This will be a growth industry for some smart people," Lewis predicted.

Bush Administration Strategy

James Connaughton, chairman of the Council on Environmental Quality, outlined the Bush administration's two overriding policy goals: economic growth and improving the lives of people worldwide. Any greenhouse gas abatement program must meet these two goals to be politically feasible, Connaughton said. The Kyoto Protocol, according to Connaughton, is fundamentally flawed because it conflicts with the first goal and does nothing to advance the second.

Within the context of climate change issues, the administration believes the most important issues are advancing and understanding climate change science, developing and deploying appropriate technology, and formulating an informed greenhouse gas mitigation strategy. According to Connaughton, arbitrarily cutting CO₂ emissions before understanding the science and developing appropriate climate change technologies will have little long-term environmental impact, but substantial, immediate, and negative economic impacts.

To further the administration's goals, President Bush has set a goal of reducing by 18 percent the greenhouse gases emitted per unit of economic growth over the next decade. Connaughton observed this goal would follow America's success in cutting its greenhouse gas intensity by 14 percent during the past decade. Using economic incentives and voluntary measures allows for cutting greenhouse gas emissions without sacrificing economic growth.

Examples of such economic incentives,

according to Connaughton, are proposed tax credits for climate change research and industry reductions in CO₂ emissions. The proposed tax credits are "unprecedented and unsurpassed" by any other nation. Moreover, "we have a \$4.5 billion climate change budget this year that surpasses any other nation." Additionally, the administration is pushing for \$40 billion in incentives for agricultural greenhouse gas mitigation.

Agricultural incentives are a common-sense strategy for a very simple reason, according to Connaughton. "This is a message that has been lost in the political debate—manufacturers are now emitting 5.7 percent below 1990 levels in greenhouse gases."

"Individuals and the private sector want to do the right thing," Connaughton stated. "Now government must facilitate individuals and the private sector doing the right thing."

IPCC Warming Concerns

Jennifer Solomon, a research scientist with the Intergovernmental Panel on Climate Change (IPCC), stressed the agency wants to hear from the petroleum industry regarding what issues it would like to see addressed in the next IPCC assessment. Solomon asserted the world is undergoing a dramatic and unprecedented rise in temperatures. "The evidence is strong that

"[T]he U.S. is the world's technological leader regarding greenhouse gas science—and this has been achieved through voluntary efforts."

LARISA DOBRIANSKY,
SENIOR POLICY ADVISOR
U.S. DEPARTMENT OF ENERGY

there is a human contribution [to recent warming trends], particularly in the last few decades."

Solomon stated there is probably more CO₂ in today's atmosphere than at any time in the past 20 million years. Cooperation and solutions must come from all segments of society, she asserted. "I am pleased to see the carbon sequestration workshop in the API conference agenda."

WWF Seeks Mandatory Cuts

Jennifer Morgan, director of the World Wildlife Fund's Climate Change Program, expressed concern that global climate change will cause declining crop production and more widespread diseases such as malaria. She criticized carbon sequestration as a primary greenhouse gas abatement strategy, and instead called for a mitigation approach via mandatory reductions in fossil fuel use.

"Voluntary approaches are not enough," Morgan said. "They must be part of a mandatory regime."

To the extent there may be a human contribution to global climate change, countered Connaughton, we should research and consider all mitigation opportunities, including carbon sequestration. We should expand rather than constrict our range of options, he noted.

Listen to the stories the mainstream media won't dare talk about!

Every Saturday 12:30pm e.s.t on WTBQ 1110AM Warwick, Florida NY
and over the World Wide Web, www.scamsandscandals.com

Award winning entrepreneur and author Tai Aguirre pulls no punches when he goes after the most incredible scams-n-scandals going on anywhere!



"We present the true-life, nightmare stories the mainstream media makes believe don't exist. We're dealing with a regulatory and bureaucratic apparatus that's abusive and out of control; people are being hurt, but they aren't being heard. Scams-n-Scandals wants to give them that opportunity."

· Taico® Radio Productions · RR3 Gypsy Trail Road · Kent Lakes, New York 10512 ·
914.422.1990 · info@scamsandscandals.com

www.scamsandscandals.com

EMISSIONS continued on next page

EMISSIONS continued from previous page

Measure, Then Manage

A necessary first step to managing greenhouse gas emissions is increasing our knowledge of greenhouse gas science and our ability to quantify greenhouse gas sources, according to Bruce Eidt, global energy management system manager for ExxonMobil Refining and Supply Company. "We have a saying at ExxonMobil," stated Eidt. "If you can't measure it, you can't manage it."

To that end, ExxonMobil is strongly committed to researching and funding climate change science. ExxonMobil is already one of the leading corporate sponsors of climate change research, and the company's senior issues advisor, Walt Buchholtz, announced at the conference that ExxonMobil was donating \$100 million to a new Stanford University project to research and solve climate change issues. (See "ExxonMobil, Stanford Team Up on Climate Change.")

While industry and research institutions continue to make scientific progress regarding CO2 sequestration and future energy sources, it is important not to prematurely select winners and losers among future technologies, said Eldon Priestly, manager of corporate strategic research for ExxonMobil Research and Engineering.

Before anointing hydrogen the winner in such a contest, for example, "we have to remember that hydrogen is a carrier rather than a source" of energy. In addition to hydrogen energy efficiency problems, there are also safety concerns, particularly in the context of motor vehicles. "I'm not sure that enough data exist regarding the hazards and risks of hydrogen fueling in the hands of the consumer," said Priestly.

Shell Optimistic

Shell Global Solutions Licensing Manager Jan de Graaf provided more European perspective. "Global warming is genuine and demands a universal response," said de Graaf. "Kyoto is just a beginning—more needs to be done."

At Shell, the emphasis is on mitigating CO2 emissions while scientists work toward a carbon-free energy future. Specifically, Shell is committed in the short term to de-carbonizing its fossil fuels prior to consumer delivery, sequestering CO2 in centralized locations, and making proven alternative energy technologies available to today's consumers. These short-term approaches, de Graaf said, will serve as a climate-friendly bridge to a future of non-carbon fuels.

Shell envisions that by 2025 a quarter of all new vehicles will be powered by fuel cells. Shell is focusing its current research on this and similar technologies in order to position itself as the supplier of future as well as current energy sources.

Roxanne Decyk, Shell's senior vice president for corporate affairs/human resources, expressed similar optimism regarding an alternative energy future. According to Decyk, Shell sees a transition to renewable energy sources occurring on a macro-dominant scale by 2050, if not sooner. By 2050, Shell envisions renewable energy sources gaining a 30 percent share of world markets, with a 100 percent share of post-2050 incremental advances.

As a bridge between today's energy sources and the renewable future, Shell is committed to increasing its production of natural gas vis-à-vis

ExxonMobil, Stanford Team Up on Climate Change

ExxonMobil will make a \$100 million grant to Stanford University in furtherance of its research into climate change science, ExxonMobil Senior Issues Advisor Walt Buchholtz announced November 20 at the American Petroleum Institute's Conference on Voluntary Actions by the Oil and Gas Industry to Address Climate Change.

The grant will fund the Global Climate and Energy Project (G-CEP), which will be led by Stanford University and involve world-renowned academic research institutions and global companies, including ExxonMobil, General Electric, and Schlumberger.

"We are convinced the Global Climate and Energy Project will make significant academic and private sector contributions to the development of practical technologies to address the potential long-term risk of climate change," said ExxonMobil Chairman and CEO Lee Raymond. "ExxonMobil is proud to work with a university of the reputation, experience, and ability of Stanford, and to be among the select group of sponsors coming together to make



this project happen."

Said Raymond, "We believe that G-CEP will play a cutting-edge role in pushing the frontiers of technology into new generations of energy systems. For ExxonMobil, G-CEP represents a powerful vehicle by which energy science will move forward to find economically attractive technologies that will be successful in the global market and vital to meeting energy needs in

the industrialized and developing world."

"The Secretary of Energy gave its heartiest congratulations to Stanford University and its sponsors, including ExxonMobil ... in providing an excellent example of what can be accomplished through voluntary programs," Larisa Dobriansky, senior policy advisor for the U.S. Department of Energy, told attendees at the API conference.

oil. Decyk reported Shell intends a near-term increase in its natural gas production from its current 40 percent share of Shell energy production to a 60 percent share.

BP Credit Positioning

Reid Smith, environmental advisor with British Petroleum's Onshore Business Unit, said BP considers a carbon credit scheme "absolutely critical" to mitigating greenhouse gas emissions.

A credit scheme, according to Smith, would introduce a necessary "market-based" element to greenhouse gas cuts. BP reported it is expanding its solar and hydrogen energy production in order to position itself to take advantage of such a carbon credit scheme.

Even so, BP recognizes hydrogen is not a free-standing energy source, requiring an expenditure of energy to free it from other molecules. There would still be greenhouse gas issues in a hydrogen economy, Smith reported.

"Voluntary actions by the oil and gas industry are creating breakthrough technologies and making a significant contribution to global efforts to reduce greenhouse gas emissions ..."

Flare Abatement

Uncontrolled flares during the course of oil recovery are an often-overlooked but important contributor to greenhouse gas emissions, stated Bent Svensson, lead energy economist for the Oil, Gas and Chemicals Department of the World Bank Group's Global Products Group. Flares at African recovery sites alone waste the energy equivalent of 85 million low-income urban households.

Moreover, noted Svensson, such flares con-

tribute 1 percent of all greenhouse gas emissions, and 10 percent of the total Kyoto greenhouse gas reduction goals. According to Svensson, research and technological advances in the petroleum industry are likely to eliminate most of these flares in the near future.

Sequestration a Viable Option

"Carbon capture and storage is a key and material bridging technology" to an alternative fuel future, stated Else Hafstad, director of corporate strategic technology for Statoil. Moreover, the petroleum industry is uniquely poised to take the lead in this new industry. "Energy companies often control both the source and the sink," Hafstad noted. Hafstad, a member of the CO2 Capture Project, stated carbon sequestration is a viable greenhouse gas emission abatement strategy for the near future. America has shown leadership regarding this emerging technology, Hafstad reported. "The U.S. has contributed largely to CO2 Capture Project funding."

Waleed Jazwari, project director of the IEA Weyburn CO2 Monitoring and Storage Project, reported carbon sequestration is both technologically feasible and environmentally safe. Computer simulation modeling and real-world monitoring of experimental projects have shown subterranean sequestration can be a safe and effective form of trapping CO2. Jazwari reported there has yet to be any unforeseen CO2 migration in underground natural chambers. The ongoing Monitoring and Storage Project has had "very encouraging results midway through the project."

In addition to depleted oil and gas chambers of the type studied by Dr. Jazwari and the CO2 Monitoring and Storage Project, the volume of underground aquifers dwarfs the volume of underground oil and gas chambers, reported Gary Pope, the Texaco Centennial Chair in Petroleum Engineering. Moreover, due to its density and the composition of natural storage chambers, CO2-saturated water in underground aquifers would be unlikely ever to rise to the surface. "I think saline water sequestration is a very advanced and prom-

ising technology," Pope added.

ChevronTexaco Business Development Director Luke O'Keefe agreed with Jazwari's and Pope's optimism. O'Keefe reported ChevronTexaco has had proven success with its gasification efforts. Gasification, as explained by O'Keefe, is the pre-combustion removal of CO2 from fossil fuels. The key to efficient gasification efforts, according to O'Keefe, is to locate the carbon sequestration sink near the fossil fuel extraction site.

"We think the global risks from slow-leakage are very low," agreed Princeton University Professor of Ecology Stephen Pacala. Because of this, Pacala favored underground CO2 sequestration as opposed to deep ocean sequestration. Although the scientific questions regarding deep ocean sequestration have yet to be answered, "it is our view that ocean sequestration is dangerous from a public relations standpoint." Underground storage, according to Pacala, avoids many of the public relations issues presented by deep ocean sequestration.

Voluntary Action Benefits

"For those who doubt the effectiveness of voluntary efforts vis-à-vis mandates," stated Larisa Dobriansky, senior policy advisor for the U.S. Department of Energy, "the U.S. is the world's technological leader regarding greenhouse gas science—and this has been achieved through voluntary efforts."

"The President's approach is that economic growth is the solution, not the problem," Dobriansky added.

Public-private partnerships are essential to the success of voluntary climate change efforts, asserted Dobriansky, as are sectoral compacts similar to those propounded by the American Petroleum Institute. "API is doing outstanding work, without a doubt," in taking effective voluntary steps to develop greenhouse gas abatement technologies, according to Dobriansky.

James M. Taylor is managing editor of Environment & Climate News.

Still No Consensus on Global Warming Science

New studies suggest global warming is not taking place, and that rising levels of CO₂ in the atmosphere are benefitting the planet's vegetation and animal life



BY JAMES M. TAYLOR

Several new studies show human-induced global warming is probably not occurring. Additionally, new studies of rainfall patterns, Mediterranean plant life, and African desert climate show recent increases in atmospheric CO₂ benefit the planet's vegetation and animal life.

Falling Temperatures in Store

As much as one-half of all global surface warming since the 1970s may simply reflect natural climate variation, concludes a new Texas A&M study. Researchers analyzed long-term changes in Pacific Ocean temperatures to conclude natural climate variations occur in cycles of up to 25 years.

"The phenomenon looks like El Niño, but with a much longer time scale—El Niño occurs over a period of from nine to 12 months, but this fluctuation lasts for about 25 years," said Benjamin Giese, oceanography professor at the Texas A&M College of Geosciences.

Giese noted that in 1976 an abrupt change in the temperature of the tropical Pacific Ocean preceded a rise of two-tenths of a degree in global air temperatures. He reports conditions are now similar to the conditions that existed prior to the 1976 climate shift, except with the opposite sign. If conditions develop in a similar way, then the tropical Pacific could cool back to pre-1976 conditions.

"The subsurface tropical Pacific has shown a distinct cooling trend over the last eight years," Giese reported.

"Until the human-collected surface readings can be reconciled with the precise lower atmosphere readings taken by satellite, it would be scientifically reckless to conclude global warming is occurring ..."

According to the climate histories, long-term changes in Pacific Ocean temperatures precede global surface air temperature changes. "The possibility exists that the warming trend in global surface air temperatures observed since the 1970s may soon weaken," writes Giese.

"This natural variation would help to counter the greenhouse gas warming effect. In fact, careful study reveals that global warming and cooling has occurred in the past in cyclical patterns."

Most Reliable Data Show No Warming Trend

Debate continues on whether human-collected data at surface weather stations, such as airports, is less reliable than satellite records. Surface weather station readings show an increase of about 0.12°

Celsius per decade, but urban growth frequently creates artificial heat islands that interfere with these stations.

The lower atmosphere, where scientists predict the first and most dramatic signs of global warming should appear, is unaffected by urban heat island effects and is monitored continuously by NASA satellites, thought to be accurate to within 0.01° C. There has been no overall warming of the lower atmosphere since the satellites began taking measurements in 1979.

In the *Journal of Climate* (Vol. 15: 2412-2428 (2002)), G.C. Hegerl and J.M. Wallace set out to reconcile the growing gap between land-based and satellite temperature readings. After extensive analysis, the authors found "no mechanism with clear spatial or time structure explains trends in the observed lapse rate." Moreover, "all attempts to explain all or a significant part of the observed lapse rate trend by modes of climate variability with structured patterns from observations have failed."

According to the Center for the Study of Carbon Dioxide and Global Change, "the reasons why no explanation can be found for the ever-increasing difference between the surface and satellite temperature trends of the past 20-plus years may be that one of the temperature readings is incorrect." The evidence, it says, points to human error in the land-based temperature record.

"It would be extremely easy for a spurious warming of 0.12° Celsius per decade to be introduced into the surface air temperature trend as a consequence of the order-of-magnitude greater anthropogenic-induced (heat-island-type) warming that occurs in most of the places where land-surface air temperature measurements are made, due to increases in human population and urban development."

Until the human-collected surface readings can be reconciled with the precise lower atmosphere readings taken by satellite, it would be scientifically reckless to conclude global warming is occurring, concludes the Center.

Sea-Ice Season in Antarctic Growing Longer

A study reported in *Annals of Glaciology* (Vol. 34: 435-440 (2002)) found sea ice in the Southern Ocean region surrounding Antarctica has exhibited mixed trends of growth and shrinkage, depending on the area studied. However, according to the study's author, "the area of the Southern Ocean experiencing a lengthening of the sea-ice season by at least 1 day per year over the period 1979-99 is 5.6 x 10(6) km², whereas the area experiencing a shortening of the sea-ice season by at least 1 day per year is 46 percent less than that, at 3.0 x 10(6) km²."

Accordingly, "a much larger area of the Southern Ocean experienced an overall lengthening of the

WARMING continued on next page

Kyoto Protocol Loses Support

BY JAMES M. TAYLOR

As the science behind the global warming scare gradually melts down, support for implementing the Kyoto Protocol is starting to evaporate. Scientists, government leaders, and taxpayers around the world are beginning to pay more attention to the steep cost and dubious benefits of implementing the Kyoto Protocol.

Scientists Admit Kyoto Won't Work

In the November 1, 2002 issue of *Science* magazine, a group of approximately 20 scientists and scientific advisors conclude that cutting CO₂ emissions is a huge waste of resources. According to the computer models used to forecast significant global warming as a result of anthropogenic CO₂ emissions, adoption of the Kyoto Protocol and instituting its significant cuts in CO₂ emissions would have virtually no impact on global climate.

The authors conclude that countries would have to make reductions far in excess of what is currently feasible in order to have any measurable effect on the climate. The solution to any dangerous global warming, conclude the article's authors, will depend on technological breakthroughs and human ingenuity during the next 30 to 100 years.

That conclusion is similar to the one advocated by "skeptics" in the global warming debate from

the beginning of the debate. Rather than impose costly mandates now to combat a hypothetical long-term danger, it makes more sense to study the science and encourage private markets to do what they do best: find cost-effective solutions to real problems.

Ratification and Implementation in Doubt

The United States and Australia have stated they will not ratify Kyoto. Russia continues to vacillate, even though the Russian economy has shrunk so

"Adoption of the Kyoto Protocol and instituting its significant cuts in CO₂ emissions would have virtually no impact on global climate."

much in the past decade that its emissions are now about a third below its Kyoto-benchmark 1990 levels. Without Russian participation, Kyoto will not achieve the requisite participation of nations responsible for 55 percent of the developed world's CO₂ emissions.

Ratification is emerging as a step far easier to

ic CO₂ was primarily responsible for the increased vegetation.

An article in the September 16, 2002 issue of *New Scientist* magazine reports "Africa's deserts are in 'spectacular' retreat." The article documents how vegetation is reclaiming large expanses of barren land across the entire southern edge of the Sahara desert. This evidence directly contradicts statements by climate change alarmists that global warming is already having an adverse affect on poor and underdeveloped African nations by increasing desertification.

According to the author of the study, Frank Pearce, "the southern Sahara desert is in retreat, making farming viable again in what were some of the most arid parts of Africa. ... Burkina Faso, one of the West African countries devastated by drought and advancing deserts 20 years ago, is growing so much greener that families who fled to wetter coastal regions are starting to go home."

An additional study, reported in *Functional Plant Biology* (Vol. 29: 1097-1106 (2002)), discovered Mediterranean shrubs were exhibiting seasonal improvements in tissue elasticity and water transport efficiency under natural long-term CO₂ enrichment. The plants' ability to produce greater tissue elasticity under CO₂-enriched conditions provided evidence that these and other plants will increase their drought tolerance with growing levels of atmospheric CO₂.

Finally, evidence continues to mount that recent increases in atmospheric CO₂ are resulting in a moderate increase in beneficial rainfall in the U.S. Climatologist Patrick Michaels reports in an accompanying *Environment & Climate News* story that U.S. precipitation has increased about 10 percent over the 20th century, an increase of roughly 3 inches in the last 100 years. "If anything, global warming is making us wetter," Michaels reports.

James M. Taylor is managing editor of *Environment & Climate News*.

take than actual implementation of the global warming treaty. Japan ratified the treaty but is widely expected to fail to take the necessary steps to achieve its emission reduction goals. The U.S., even though it did not ratify the treaty, is expected to spend more on global warming research and emission control projects than any other country. (See "Conference Highlights Voluntary Actions on Climate Change," page 4.)

Canadian ratification of Kyoto has the support of the Prime Minister and was once considered a political slam dunk. However, as this story went to press, lame-duck Prime Minister Jean Chretien was facing considerable political opposition to his plans to make Kyoto one of his legacies. Public support for the Protocol has been steadily eroding as citizens learn more about the underlying science and projected costs to the Canadian economy.

Public opinion polls show Canadians are now split on the issue, with some polls showing signif-

icantly more Canadians oppose the Protocol than support it. The Canadian Taxpayer Federation has released a study showing implementation of the Kyoto Protocol will reduce net annual household income by \$2,700 per year by 2010. That represents a 5.5 percent decline over household income in a non-Kyoto Canada.

"In light of the fact that Kyoto yields no economic or environmental benefits this is obviously a bad deal for Canadian households and should be rejected," writes Professor Ross McKittrick of the University of Guelph, who authored the Taxpayer Federation study. The study also concludes natural gas prices could rise by 90 percent and gasoline prices by 50 percent if Kyoto were implemented.

Canadian citizens, it appears, are beginning to take notice.

James M. Taylor is managing editor of *Environment & Climate News*.

EARTH TRACK



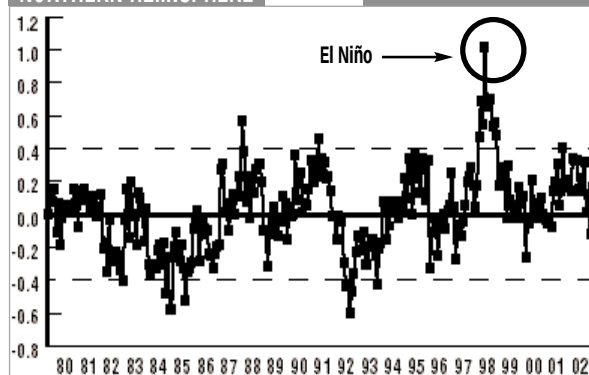
NOVEMBER 2002

Each month, Earth Track updates the global averaged satellite measurements of the Earth's temperature. These numbers are important because they are real—not projections, forecasts, or guesses.

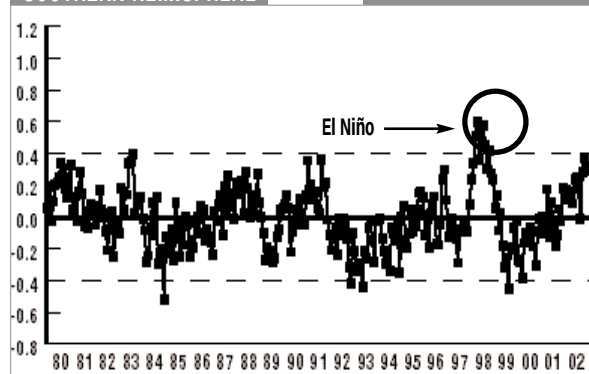
Global satellite measurements are made from a series of orbiting platforms that sense the average temperature in various atmospheric layers. Here, we present the lowest level, which climate models say should be warming. The satellite measurements are considered accurate to within 0.01°C.

The global average temperature for August, shown on page 1, was 0.15°C above normal. The Southern Hemisphere's temperature departure, shown below, was 0.29°C above normal; the Northern Hemisphere's, below right, was 0.02°C above normal.

NORTHERN HEMISPHERE



SOUTHERN HEMISPHERE



The data used to create these graphs can be found on the Internet at http://vortex.nssc.uiuh.edu/data/msu/t2/tlghlmm_5.0.

WARMING continued from previous page

sea-ice season over the 21 years 1979-99 than experienced a shortening." The lengthening sea-ice season is the opposite of what climate models predict would happen in a warming world.

Arctic Ice Thickness Shows No Change

A recent study in *Geophysical Research Letters* (Vol. 28: 1039-1041 (2001)), found there has been no significant change, one way or another, in Arctic sea ice thickness. "[M]ean ice thickness has remained on a near-constant level around the North Pole from 1986-1997," notes the study's author. The data were obtained from six submarine cruises that traversed the central Arctic Basin taking measurements.

The unchanged sea ice thickness is particularly damaging to claims of global warming because warming alarmists have lately claimed that either decreasing or increasing Arctic ice cover are signs of global warming. This intellectual dexterity turns the global warming thesis into an untestable hypothesis, which is convenient for a certain kind of "the facts don't matter" radical environmentalism, but is not sound science. Evidence of long-term consistency in Arctic sea-ice thickness defies global warming predictions even in the context of the untestable hypothesis.

Rising CO₂, Shrinking Deserts

Several new studies indicate increasing levels of atmospheric CO₂ benefit global plant life. A study on variations in northern vegetation inferred from satellite data from 1981-1999, reported in *Journal of Geophysical Research* (Vol. 106: 20,069-20,083 (2001)), found an 8 to 12 percent increase in vegetation across North America and Eurasia, respectively. A subsequent comment in the same journal, *Journal of Geophysical Research* (Vol. 107, 10,1029/2001389), employed statistical analysis to conclude that a concurrent rise in atmospher-

Global Warming Is Not Responsible for This Drought

BY PATRICK J. MICHAELS

Who doesn't believe the recent East Coast drought is a result of global warming, or at least a portent of a terrible future? Believers have ranged from the *New York Times* to just about everyone I've run into at the 7-Eleven. In response, here are a few facts—along with pertinent Web sites for data sourcing—that may shake the faith.

Rainfall Versus Evaporation

First, a science shocker: Droughts are caused by a lack of water. That can be caused by a massive rainfall deficit, or by unusual rates of evaporation from the soil. The warmer it is, the more water evaporates.

A fact, somewhat obscured by the jungle of vegetation that covers the Middle Atlantic region, is that we are prone to moisture shortages almost every summer. Supply adequate water to a lawn or a forest, calculate how much moisture is directly evaporated by solar heating or transpired by the plants, and you will discover, in an average summer, about 17 inches of water will disappear. Normal summer rainfall is about 12 inches, so in a typical year, we wind up about 5 inches short.

That would be no big deal, except most of our summer rain comes from scattered thunder-

while temperatures in the upper atmosphere, as measured both by satellites and weather balloons, have not. If the surface warms while the air above does not, the surface air is more buoyant, and that will increase precipitation intensity. You can view the satellite data at www.uah.edu/News/climate, and a comparison of the satellite and the weather balloon data at the Web site for the *Journal of Climate* (you may have to pay for this), ams.allenpress.com/amsonline/?request=get-abstract&issn=1520-0442&volume=015&issue=17&page=2412.

Do the Math

We can measure changes in wetness and dryness in a number of ways. One popular tool is the Palmer Drought Severity Index. This history begins in 1895 and can be found at lwf.ncdc.noaa.gov/oa/climate/research/2002/jul/drought-national-overview.html. A mathematical analysis of the data reveals no increase in dryness and a slight, but statistically significant, increase in wetness.

So, since precipitation is increasing, if global warming causes droughts, then a big increase in temperature must be driving a huge evaporation

change. But when we plot temperatures observed in the Middle Atlantic over the past 100 years, changes are even smaller than the minuscule values observed nationally. Even in the hottest years, evaporation is only 1.5 inches above average.

Do the math. Precipitation has increased by 3 inches. Overall, evaporation hasn't changed much at all. Even in the worst years, it has increased by 1.5 inches. So, if global warming causes climate changes, the result nationwide is an increase (not a decrease) of about 1.5 inches of available water in a bad year and 3 inches in an average year. If anything, global warming is making us wetter.

These calculations are not difficult to perform, and a course in applied climatology wouldn't hurt those who glibly blame this year's drought on global warming. If you're interested in taking that course, I know a professor you can find at <http://www.virginia.edu>.

Patrick J. Michaels is senior fellow in environmental studies at the Cato Institute and an advisor to the American Legislative Exchange Council.

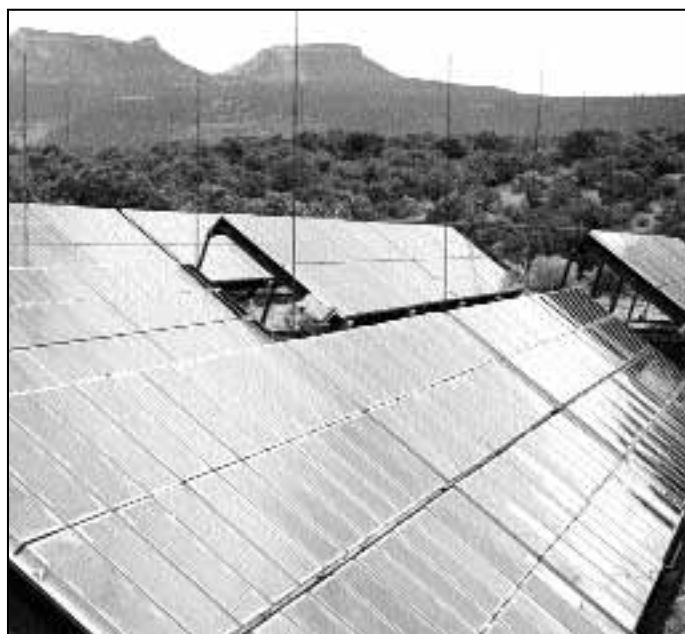
"Are we getting drier? The answer is no. U.S. precipitation has increased about 10 percent over the 20th century, an increase of around 3 inches in the last 100 years."

storms that usually produce a nothing-hither-and-a-deluge-yon pattern. Because the rains are so scattered, in an average summer there is a 70 percent chance that a significant (multi-county) portion of the Middle Atlantic will experience a prolonged period without much rain and a lot of evaporation. That's why there's scarcely a year here in which some county does not apply for federal agricultural disaster relief.

How does that factor into warming? U.S. surface temperatures have risen a mere 0.4°C in the past 100 years. To view that data, go to the Web site of the National Climatic Data Center, a federal facility, at lwf.ncdc.noaa.gov/oa/climate/research/2001/ann/us-summary.html#Atemp.

Are we getting drier? The answer is no. U.S. precipitation has increased about 10 percent over the 20th century, an increase of around 3 inches in the last 100 years. The precipitation data can be found at lwf.ncdc.noaa.gov/oa/climate/research/2001/ann/us-summary.html#Atemp.

Many scientists, including myself, can construct arguments relating this rainfall increase to temperature changes. That's because surface temperatures have risen a bit in recent decades,



Don't Get Burned by Solar Power

BY MATTHEW R. EDGAR

The Rocky Mountain Chapter of the Sierra Club has launched a new campaign to "promote energy generation and efficiency that minimizes harmful impacts on public health and the environment, while improving the state's economy."

The group wants to require that 20 percent of all electricity in Colorado be generated by renewable energies by 2020. It also wants renewable energy to become 30 percent more efficient than it is currently. Impressive, but impossible.

According to the Energy Information Agency (EIA)—the nonpartisan data collection branch of the Department of Energy—less than 1 percent of all electricity generation in Colorado currently comes from renewable energy (defined as wind, solar, biomass, and geothermal). The EIA predicts that in the future, on a worldwide basis,

renewable energies might increase their market share by a few percent.

Is it realistic to expect that in just 18 years, renewable energy could increase its market share in Colorado by 1,800 percent? In other states where similar policies are in effect, the mandate has never been achieved. For example, Florida requires that 7.5 percent of energy generated in the state be produced by renewables, but the state has reached just 3 percent.

An Inefficient Technology

Whether the share of energy produced by renewables can be increased depends primarily on the efficiency of the technology.

In this case, "efficiency" means how much of the energy source (be it wind or coal or solar) can actually be converted to electricity. For wind power, the theoretical maximum efficiency is 59 percent, but most windmills achieve

about 50 percent efficiency with very good land and wind conditions. The efficiency of solar energy—how much heat can be converted to electricity—is approximately 35 percent.

One reason wind and solar energy are so inefficient is because they require vast amounts of land. Wind power requires about 11 square feet of land to generate 4 watts of electricity—the amount needed to turn on a light bulb. To generate that same 4 watts of electricity, a natural gas plant requires 30 to 200 times less space.

Solar energy consumes even more land than wind. Solar panels consist of photovoltaic (PV) cells. A single cell is about 10 centimeters in size and generates about 1 watt of power—enough for a pocket calculator, but not for a radio. A module of 40 PV cells can produce enough electricity to power a small light bulb. The modules can be combined into groups of 10 to form solar arrays. Ten to 20 PV arrays can power a single household, but for larger electrical needs, such as industrial factories, hundreds of arrays must be connected to generate enough power.

The inefficiency of wind and solar power is a major obstacle to increasing the market share achievable by renewable energies. Moreover, the vast amounts of land required by wind and solar farms represent an obvious environmental drawback ... and a blight on the visual landscape renewable energy advocates claim they want to protect.

The Sierra Club argues that if the government mandates the use of renewable energy, the efficiency of renewable energy will increase. But corporate welfare—either direct welfare, in the form of subsidies to firms producing renewable energy, or indirect welfare in the form of mandates that protect one form of energy over another—isn't usually the best way to make a company more efficient. Because they must compete in the marketplace ... not because the government forces consumers to buy their products.

Matthew R. Edgar is a research associate with the Golden, Colorado-based Independence Institute.

Open Letter on Credits for "Voluntary" Greenhouse Gas Reductions

The Honorable George W. Bush
The White House
1600 Pennsylvania Avenue NW
Washington, DC 20500

October 2, 2002

Dear Mr. President:

Congratulations on your Administration's tour de force performance at the Sustainable Development Summit in Johannesburg. We applaud your successful efforts to keep the Kyoto Protocol off the agenda and focus discussion on the true prerequisites of human welfare and environmental improvement: property rights, the rule of law, and the wealth creation such institutions foster and sustain.

We are concerned, however, that the Administration's plan to award regulatory credits for "voluntary" greenhouse gas (GHG) reductions will strengthen pro-Kyoto forces here at home—interests adverse to your supply-side economic and energy policies. Transferable GHG credits will:

- (a) create the institutional framework for a future Kyoto-style emissions cap-and-trade program, and
- (b) grow the "greenhouse lobby" of Enron-like companies seeking to profit from energy rationing schemes.

We appreciate your efforts to replace Kyoto's mandatory, anti-growth, emission tonnage targets with voluntary, growth-friendly, emission intensity targets. However, we believe supply-side reforms such as accelerated depreciation are a better way to speed up capital turnover and emissions intensity reduction.

Here are nine key reasons why the Administration should rethink this plan:

- Transferable GHG credits will mobilize lobbying for energy rationing and cap-and-trade schemes. Credits do not attain full market value unless a GHG cap and energy rationing are imposed. In effect, credits are Kyoto stock that bears dividends if, but only if, Kyoto or equivalent regulation is adopted.
- Although touted as "voluntary" and "win-win," transferable credits create a coercive system in which one company's gain is another's loss. For every company that gains a credit in the pre-regulatory period, there must be another that loses a credit in the mandatory period (or else the emissions "cap" will be broken). Consequently, companies that do not "volunteer" will be penalized—forced in the mandatory period to make deeper emission reductions than the cap itself would require, or pay higher credit prices than would otherwise prevail.
- Transferable credits will stack the political decks against your pro-growth economic and energy policies. Since the scheme penalizes non-participants, many businesses will "volunteer" just to avoid getting shoved to the shallow end of the credit pool later on. Many companies will end up holding energy rationing coupons that mature only under Kyoto or comparable regulation.
- Transferable credits will penalize small business. Participants gain at the expense of non-participants. Small businesses will not participate, because they cannot afford to hire carbon accountants and engineers.
- Transferable credits are a brainchild of the Green Left. During the 105th and 106th Congresses, Environmental Defense, the Pew Center on Global Climate Change, the Clinton-Gore administration, and Senators Chafee and Lieberman devised and marketed transferable credits to build a pro-Kyoto business clientele.
- Transferable credits empower politicians to pick economic winners and losers. Consider Sen. James Jeffords' "Clean Power Act," which would impose Kyoto-like CO₂ controls on power plants. Up to 99 percent of the CO₂ credits would go to persons and entities that produce little or no electric power.
- Transferable credits increase the risk of future Enron-type scandals. Firms might "earn" credits by not producing things, outsourcing production, shifting facilities overseas, or "avoiding" hypothetical future emissions. A market in such dubious assets will be fertile soil for creative accounting.
- Transferable credits will thwart your efforts to replace Kyoto's mandatory tonnage targets with a voluntary intensity goal. A carbon intensity goal offers no alternative to Kyoto if it is coupled with a crediting scheme that fuels pro-Kyoto lobbying.
- Removing tax barriers to capital investment is a better way to reach the goal. Accelerated depreciation would speed up capital turnover, carbon intensity reduction, and economic growth—all without picking winners and losers, setting the stage for CO₂ regulation, or encouraging Enron-like asset manipulation. Accelerated depreciation is a true "no regrets" policy.

In conclusion, transferable GHG credits imperil your efforts to stimulate growth and secure affordable energy for the American people. We encourage you instead to promote tax reforms that reduce carbon intensity while strengthening the economy. We are eager to help you develop initiatives to advance those objectives.

Sincerely,

FRED L. SMITH JR.
President, Competitive Enterprise Institute

MARLO LEWIS JR.
Senior Fellow, Competitive Enterprise Institute

PAUL BECKNER
President, Citizens for a Sound Economy

JOHN BERTHOUD
President, National Taxpayers Union

L. PATRICIA CALLAHAN
President,
American Association of Small Property Owners

DAVID KEENE
President, American Conservative Union

KEVIN L. KEARNS
President, U.S. Business and Industry Council

KAREN KERRIGAN
Chairman, Small Business Survival Committee

JAMES MARTIN
President, 60 Plus Association

GROVER NORQUIST
President, Americans for Tax Reform

DUANE PARDE
Executive Director,
American Legislative Exchange Council

DWIGHT PETEL
Director, Association of Concerned Taxpayers

JOHN POWELL
Senior Vice President & Chief Operating Officer,
The Seniors Coalition

MARK Q. RHOADS
Vice President, United States Internet Council

TOM SCHATZ
President, Citizens Against Government Waste

FRAN SMITH
Executive Director, Consumer Alert

BENJAMIN C. WORKS
Executive Director,
SIRIUS (Strategic Issues Research Institute)

Sawgrass Rebellion Snuffed Out by Local Politicians

BY JAMES M. TAYLOR

Florida's Sawgrass Rebellion was snuffed out October 17 when the sponsors were unable to obtain from local government officials a permit to hold the event. Confronted by the power of petty tyrants, a protest rally once expected to draw thousands of angry citizens from across the country became instead a soul-searching cross-country tour for a caravan of citizen activists.

Controlled Flooding Spurred Rebellion

Naples, Florida, just north of the Everglades, had become the epicenter of a citizen protest movement that came to be known as the Sawgrass Rebellion. The Rebellion took root as the Army Corps of Engineers began raising the water table in the nearby Everglades, flooding out longtime citizens. Allegedly motivated by an effort to save the Cape Sable seaside sparrow, the Corps has been condemning and confiscating the homes it can legally take ... and flooding out those citizens beyond the reach of their confiscation powers.

The Corps has taken steps to condemn 100 homes in and around the Everglades, claiming the government agency needs the land as a "buffer zone" for its projects. For land it can't acquire by condemnation, artificial flooding is serving the Corps' purpose. Many local citizens doubt this is about the sparrow, claiming ulterior motives are at work.

The flooding occurs when the Corps artificially holds back water during nesting season in areas inhabited by the sparrow. Holding back water in some areas results in flooding in other areas. Coincidentally—or not—homes the Corps would like to acquire are frequent flooding victims.

Westerners to the Rescue

The New Mexico-based Paragon Foundation emerged as a key organizer in the October 17-18 Sawgrass Rebellion protests planned for Naples, and an October 19 protest scheduled for Homestead.

Caravans from as far away as Klamath Falls, Oregon and Darby, Ohio planned to make the cross-country trek, picking up supporters on the way, in an effort to help out fellow citizens in need. Capturing and expanding upon the spirit of the Klamath Falls protests in the summer of 2001 (see "Klamath Falls bucket brigade protests water shut-off," *Environment & Climate News*, July 2001), Sawgrass Rebellion organizers expected as many as 30,000 people to participate in the protests.

Protesters Denied a Rally Site

However, storm clouds began gathering over the Sawgrass plans during the late summer as one after another proposed rally site was denied to the protesters. First, Collier County rescinded its offer to make the county fairgrounds available for the protests. Although the fairgrounds are accustomed to, and indeed designed for, large gatherings of people, the County claimed the fairgrounds could not accommodate the Rebellion's expected turnout.

After the fairground arrangements collapsed, one privately owned meeting place after another was initially offered to rally organizers, but then rescinded after what some called "government arm-twisting." According to the Paragon Foundation's J. Zane Walley, a high-ranking Collier

The Rebellion took root as the Army Corps of Engineers began raising the water table in the nearby Everglades, flooding out longtime citizens.

Now that they were heading west again, Speaker of the House Jim Ford invited the protesters back for an encore visit.

Upon entering a session of the state legislature, the Oregon and Nevada visitors were greeted with a rousing standing ovation. "We absolutely appreciate what you all are doing to raise awareness of the issues," Lieutenant Governor Amy Tuck told the group. The westerners then attended a series of meetings with state legislators.

"We have not been hit as hard as you have been, but it's coming," said Rep. Herb Frierson of Hancock County. "We have passed a bill here that says if an act of government diminishes the value of a person's property, then compensation is due. The challenge is getting the federal government to recognize that without resorting to litigation."

Rep. Bo Eaton of Smith County told the visitors that federal agencies, under fear of activist lawsuits, have halted virtually all logging in his county.

"We used to manage underbrush with controlled burns, but they have become so hardnosed about issuing burning permits that burning has stopped," said Eaton. "It's crazy, because now we are forced to use chemical burning, where we treat the ground with stuff that kills everything."

"The whole experience was inspiring," said Ransom. "I envisioned elected officials as being unapproachable. It was amazing how those people came to me, walked up and shook my hand. Everybody was genuinely interested and supportive, the one exception being the Sierra Club's representative."

"I think we were able to give a better understanding of what issues the West faces," said convoy participant Grant Gerber. "From their explanations it was clear Mississippi was being hurt by environmental regulations, mostly concerning wetlands."

James M. Taylor is managing editor of Environment & Climate News.

County official appeared

to be threatening reprisals against potential hosts for the Rebellion.

"Desperate and determined, property rights activists could only manage to obtain a yard sale permit from the county government in order to hold a small rally for local activists and supporters who arrived from around the nation via caravan," reported the American Policy Center's Tom DeWeese.

"We hope it isn't maneuvering by anyone in the county government" that forced the cancellation of the Rebellion, opined the *Naples Daily News*. "Detecting a hint of official opposition makes us wonder what it is that we were not to be trusted to hear."

Convoy Makes the Trip

In the end, a convoy of roughly 50 vehicles made the cross-country trek in symbolic support for the failed event. "We were five stops into the tour, in Nevada, when they called us up and said the whole thing was off," said convoy leader Bill Ransom. "But we had no intention of heading home."

The convoy made the journey to the Dade County Farm Bureau in the Miami suburb of Homestead, which had been the planned site for the final day of the Rebellion. "These are the people that invited us in the first place, now there's nobody," said Ransom.

Nevertheless, any disappointment caused by the deserted rally site was eased as the protesters made their way back west. On their way to Florida, the convoy had visited the Mississippi state capitol at the request of Rep. Daniel Stephen Holland, chair of the state's Standing Committee on Agriculture.

labeled "poison" and "intrinsically dangerous" may have been harvested on my property.

Millions of starving people ought to inspire concern and compassion among national leaders, but in Zambia the fear of biotechnology has trumped all other sentiments. "I'm not prepared to accept that we should use our people as guinea pigs," says Mwanawasa.

Good news, sir: You don't have to. Americans have been growing and eating biotech crops for years—about one-third of all the corn grown in the United States has been genetically modified, mostly to resist pests and reduce sprays.

Biotech crops have survived tough regulatory scrutiny in the United States; there isn't a kernel of

evidence suggesting they're unhealthy. My corn relies on the manipulation of natural toxins that we consume routinely in other foods. It doesn't even taste different.

Africa's Dilemma

Recently the United Nations reported 14.4 million people in southern Africa are threatened by drought-induced starvation, up from an earlier estimate of 12.8 million. The leaders of Lesotho, Malawi, and Swaziland have had the good sense to accept aid that includes biotech corn.

Zambia, however, is not alone in blocking the donations. Zimbabwe is home to nearly half of the famine victims, and recently it agreed to accept

Africans Starve Rather than Accept Bounty of GM Corn

BY JOHN REIFSTECK

I grow poison on my farm, feed it to my family, and sell it to unsuspecting consumers in the U.S. and around the world.

That's what the president of Zambia seems to think. As 3 million people in his country face starvation, Levy Mwanawasa has let some 15 million metric tons of donated corn sit

untouched in storage because some of it is genetically modified.

From Illinois to Zambia

My farm is right along the Illinois Central Railroad, which means a lot of what I grow is transported down to the Gulf of Mexico and shipped abroad. Some of the warehoused corn Mwanawasa has

Saving Prairie Dogs ... to Kill Them



BY WILLIAM PERRY PENDLEY

Phillips County, in north-central Montana along the Canadian border—an area once described as “an almost mythical place, a world of savage blizzards and withering droughts in a geography too vast to comprehend”—contains miles of sparse scrub grass, low native plants, gravel, and rocks. Hostile and forbidding, bitterly cold in the winter and aridly hot in the summer, it is home to mountain lions, coyotes, rattlesnakes, antelope, deer, and black-tailed prairie dogs. The few people, 0.9 per square mile, are easily outnumbered by the prairie dogs.

Gary Marbut and Dr. Philip Barney, with fellow Montanans, formed a club to promote firearm safety and engage in an activity as old as mankind's first encounter with the land of Phillips County: hunting. That land is primarily federal land, managed by the Bureau of Land Management (BLM) of the U.S. Department of the Interior. Since its creation, the Interior Department has kept the land open to the shooting of unregulated wildlife, such as prairie dogs, one of the few recreational activities in this desolate region.

The Federal Land Policy and Management Act

requires the BLM to develop plans to control the manner in which these lands are managed. The Act requires the public be actively involved in the development of such management plans.

In 1994, the BLM developed such a plan, called “the Judith Valley Phillips Resource Management Plan,” or “JVP RMP,” for the 2.8 million acres under BLM control in Phillips, Fergus, Petroleum, Judith Basin, Valley, and southern Chouteau Counties. A portion of the 2.8 million acres covered by the JVP RMP lies within Phillips County, which contains 20,000 acres of land referred to as the “40 Complex.” Under the JVP RMP, approved by the BLM in 1994 after extensive public participation, Marbut, Barney, and their fellow Montanans may use the public lands of the 40 Complex for hiking, camping, hunting, and the recreational shooting of unregulated wildlife.

Meanwhile, the U.S. Fish and Wildlife Service (FWS) decided to introduce a minimum of 20 sur-

plus black-footed ferrets in 1994, and annually thereafter for two to four years, into north-central Montana, including the 40 Complex. The FWS also announced the ferrets would continue to be protected under the Endangered Species Act (ESA).

A short time later, without notice or opportunity for public comment, the BLM closed the public lands in the 40 Complex to the “discharge or use of firearms,” to “protect habitat for the reintroduction of the black-footed ferrets.” Violations of the Closure Order result in “a fine not to exceed \$1,000 and/or imprisonment not to exceed 12 months.”

Since issuance of the Closure Order, Marbut, Barney, and their fellow Montanans have been denied the right to engage in an activity allowed by the JVP RMP: the recreational shooting of unregulated wildlife.

The federal government is not seeking to protect the prairie dogs because they are listed under the ESA; they are not. Nor is the federal government seeking to prevent the shooting of fer-

rets, which are protected by the ESA; there is no danger of that.

What the government is seeking is to save prairie dogs so the ferrets can invade their homes and eat them. As the FWS put it, “[t]he prairie dog colony provides prey base and habitat for the survival of the ferrets. ... Black-footed ferrets depend almost exclusively on prairie dogs and prairie dog towns for food and shelter. ...”

The natural extension of this interpretation of the ESA is mind boggling: Any plant or animal could be placed off-limits under the ESA because it is used, as food or shelter, by a plant or animal protected by the ESA!

Marbut, Barney, and their fellow Montanans understand the dangers posed by the federal government's precedent-setting and illegal actions in Phillips County. But with the lawsuit they filed against the government, they have a limited objective. They simply want the government to obey the law so that, “in a geography too vast to comprehend,” they can go hunting again.

William Perry Pendley is president and chief legal officer of the Mountain States Legal Foundation.

“The natural extension of this interpretation of the ESA is mind boggling: Any plant or animal could be placed off-limits under the ESA because it is used, as food or shelter, by a plant or animal protected by the ESA!”

assistance—but only if the corn is milled first, so that local farmers can't plant the seeds. At a cost of \$25 per ton, this is not an inexpensive requirement, and it will keep food from the mouths of the hungry. Mozambique shares this unwise policy.

Europe is a driving force behind this resistance. It hasn't imported any corn from the U.S. since 1998 because some of our farmers use forms of genetic modification that have not yet cleared all of the European Union's regulatory hurdles. By refusing our donations, Mozambique, Zambia, and Zimbabwe are looking ahead to a day when they enjoy an export market once more.

At least the Europeans aren't starving. A slow-moving bureaucracy is a luxury they can afford. It

also has become a convenient tool for protectionists who are less concerned with preserving consumer health than manipulating public opinion about biotechnology and shielding special interests from free trade.

For Africans, however, agricultural biotechnology is a matter of life and death. Instead of a “poison,” it's an antidote to the terrible problem of hunger.

Biotech Is the Future of Farming

On my own farm, genetically modified corn has allowed me to boost my yield by 5 to 10 percent, which means I'm using the same amount of land to feed a growing number of people.

Nobody has invented a drought-resistant form of corn—at least not yet. Incredible developments are nevertheless on their way. In Iowa, a handful of “pharmers” are experimenting with biotech corn to produce a medicine that will help treat children suffering from cystic fibrosis.

That's all in the future. Today, the people of southern Africa simply need to be fed, and biotech crops are a safe and economical way of helping out.

But Africans deserve more too: Their farmers should have access to the best farm technology available. They shouldn't just take our biotech-corn handouts—they should have the freedom to plant it themselves. Of the 54 countries in Africa, only the government of South Africa has clear rules

FOR MORE INFORMATION

visit Truth about Trade's Web site at
<http://www.truthabouttrade.org>.

permitting and encouraging farmers to grow biotech crops.

Above all else, however, Africans deserve something other than a perverse, anti-scientific philosophy that declares, “Better dead than fed.”

John Reifsteck is a farmer in Champaign, Illinois and a board member of Truth About Trade and Technology.

Media Spin Obscures Improvement in Air Quality

BY BEN LIEBERMAN

The Environmental Protection Agency's recently released *Latest Findings on National Air Quality* confirms the good news that America's air quality is improving. Unfortunately, many media outlets and environmental activists insist on telling the public otherwise.

The report details the positive trends for virtually every major pollutant covered by the Clean Air Act (CAA). It states that "since 1970, aggregate emissions of the six principal pollutants tracked nationally have been cut 25 percent." Consequently, air quality has "shown improvements over the past 20 years for all six principal pollutants." Other CAA programs, such as the one designed to fight acid rain, have also yielded emission reductions.

The report acknowledges many parts of the country are not yet in compliance with all of the CAA's targets. Nonetheless, the air pollution problems the CAA was enacted to address appear well on their way towards resolution.

Media Ignores Good News

However, good news is no news, especially on the environment, and the media largely ignored this

report. By contrast, scary claims of poor air quality from activist organizations get far more attention.

For example, the American Lung Association's annual *State of the Air*, which invariably gives a failing grade to more than half the nation's counties and cities, always generates massive coverage. And the U.S. Public Interest Research Group's heavily publicized *Danger in the Air* not only painted a gloomy picture of air quality, but also blamed President George W. Bush for allegedly trying to allow polluters "to emit millions of tons of additional smog-forming pollutants into our already smoggy skies."

Oddly, these pressure group studies relied on the same EPA data summarized by the agency in its report. In other words, the actual conclusions from the agency responsible for compiling the evidence received far less media attention than the misleading spin from third parties.

Reporters for the *Washington Post* and *New York Times* did cover the release of the EPA report, but in a manner that missed the boat entirely. Instead of emphasizing the positive air quality trends, both faulted the Bush EPA for not including a section on global warming. This "omission," of course, makes

perfect sense, as the report focuses on the emissions targeted under the CAA, which does not reg-

"[T]he air will probably be measurably cleaner at the end of the Bush administration than it was at the end of Clinton's. But don't expect very many people to hear about it."

ulate carbon dioxide or other so-called greenhouse gases. In addition, the federal government already cranks out a wealth of global warming-specific studies. Nonetheless, according to the *Post* and *Times*, the only real story in EPA's report was the Bush administration's failure to use it to scare people about global warming.

Cleaner Air in the Future

The positive air quality trends show few signs of slowing down, indicating the progress will continue. Further, a wave of tough new provisions,

including several Clinton-era regulations affecting motor vehicle emissions, are scheduled to take effect over the next five years.

Notwithstanding the politically motivated assertions to the contrary, President Bush is not doing anything that would jeopardize these continued gains. But those who have painted a misleadingly pessimistic picture of air quality have been no more truthful in attacking the President's handling of the issue. While there is room for legitimate debate on Bush's proposed changes to the CAA, including the Clear Skies Initiative and his plan to reform the New Source Review program, claims that the administration is setting the stage for backsliding on air quality are pure nonsense.

In all likelihood, future EPA reports will show additional progress. Indeed, the air will probably be measurably cleaner at the end of the Bush administration than it was at the end of Clinton's. But don't expect very many people to hear about it.

Ben Lieberman is a senior policy analyst with the Competitive Enterprise Institute. This article first appeared on TechCentral Station and is reprinted here with permission.

Preserving the American Dream

A Conference for Supporters of Mobility and Homeownership • Washington, DC • February 23-25, 2003

It is time to start a **new movement** aimed at preserving the American Dream of mobility and homeownership. This conference will bring together dozens of urban experts with scores of professionals and activists working to protect freedom, mobility, and livability in their home cities and regions.

The conference will help you effectively oppose rail transit boondoggles, high-density urban zoning, restrictions on rural property rights, and other so-called "smart-growth" policies. It may also lead to the creation of an American Dream Coalition that will promote free-market solutions to urban problems.

Business leaders, rural landowners, and urban residents concerned about traffic congestion, high-density zoning, and restrictions on property rights should all attend this conference. Speakers will include **Wendell Cox** (publicpurpose.com), **Robert Nelson** (University of Maryland), **Steve Hayward** (American Enterprise Institute), **Randal O'Toole** (Thoreau Institute), **Sam Sciley** (Buckeye Institute), and many more.



Preserving the American Dream is co-sponsored by the Heartland Institute, Heritage Foundation, Thoreau Institute, and several other organizations. The conference will take place at the Wyndham City Center Hotel in Washington, DC. Register soon, as space is limited. For more information, see www.cei.org/amerdream.html.



Registration Form

☐ Yes! Sign me up to attend **Preserving the American Dream**. My registration fee of \$199 (\$149 student/low-income) is ☐ enclosed ☐ will be paid through PayPal (send payment to rs@tueorg).

Name

Organization (if applicable)

Address

City State Zip

Make check payable to The Thoreau Institute and mail to:
P.O. Box 1998, Bendon, Oregon 97411.



NSR continued from page 1

industry by surprise. Maintenance and repair decisions made according to predictable and consistently enforced EPA guidelines were suddenly and retroactively challenged by EPA as unlawful. As a result, businesses delayed implementing current and future maintenance and repairs, uncertain as to whether New Source Review regulations would be applied to them. Efforts to improve the efficiency of industrial facilities and reduce pollutant emissions were being postponed until more reliable enforcement standards could emerge.

June 2002 Proposals

On June 13, 2002, EPA officials admitted the agency had over-reached in 1999. Specifically, EPA issued a report calling for a return in many ways to the pre-1999 New Source Review standards.

The EPA report offered seven recommendations, four of which were first proposed by the Clinton EPA in 1996:

- simplify the application process for pollution control projects;
- establish plantwide applicability limits to provide facilities with greater flexibility to modernize operations without increasing air pollution;
- offer flexibility in installing pollution abatement equipment without requiring major refurbishments;
- change the emissions baseline calculation away from an assumed 24-hour-a-day full running capacity.

Three of the recommendations were new:

- clarify and simplify the definition of routine maintenance, repair, and replacement;
- streamline processes regarding partial facility upgrades;
- simplify criteria for aggregating multiple simultaneous projects.

"Our reforms will remove the obstacles to environmentally beneficial projects, clarify NSR

requirements, encourage emissions reductions, promote pollution prevention, provide incentives for energy efficient improvements, and help assure worker and plant safety," EPA noted. "Overall, our reforms will clarify and simplify the program so that industry will be able to make improvements to their plants that will result in greater environmental protection."

"On June 13, 2002, EPA officials admitted the agency had over-reached in 1999 when it departed from the plain language and long-established interpretation of New Source Review mandates. ... The November 22 announcement assured that most of the June 2002 recommendations would be implemented."

Importantly, noted EPA, "The basic elements of the NSR program remain in place. All new major sources of air pollution will need to comply with the best control technology and existing sources which make major modifications and have a significant increase in actual emissions also will have to meet these requirements. The reforms simply clarify which changes at existing sources can be made without triggering NSR."

November 2002 Confirmation

The November 22 announcement assured that most of the June 2002 recommendations would be implemented.

"EPA is taking actions now to improve NSR and thereby encourage emissions reductions,"

said EPA Administrator Christie Whitman in a news release. "The steps we are taking today recognize that some aspects of the NSR program have deterred companies from implementing projects that would increase energy efficiency and decrease air pollution."

The most important revisions will now allow facility owners to:

- calculate their emissions on a plant-wide basis rather than for individual pieces of equipment;
- exempt a facility from equipment updating if the government has already reviewed its existing emission controls within the past 10 years;
- set the baseline emission level at the highest annual level during the past decade when determining if new emissions require new controls;
- exempt secondary emissions that result from new pollution abatement equipment addressing other types of emissions.

Additionally, the new revisions contemplate EPA updating its standards for defining what constitutes routine maintenance that triggers the NSR regulations. Under one proposal, a facility could spend up to 10 or 20 percent of its replacement value for improved safety or efficiency measures before triggering NSR review. Another proposal would allow functionally equivalent replacements of existing equipment—provided the replacements do not constitute a major revision or renovation—without triggering NSR review. The final details have yet to be ironed out.

Mixed Reactions

Not all response to the EPA announcement was positive.

"This early Christmas gift to industry means more pollution and less protection," said outgoing Senate Environmental Committee Chairman Jim Jeffords (I-Vermont).

"This is bad news for anyone who breathes," added Sierra Club Executive Director Carl Pope.

Others disagreed, noting the NSR revisions will

"remove the perpetual threat of litigation now hanging over the heads of power plant operators facing different decisions about whether to proceed with critical maintenance," explained Edison Electric Institute (EEI) spokesman Dan Riedinger.

"Facilities [were] discouraged from undertaking routine actions for fear of huge penalties or long delays or both," agreed the International Brotherhood of Boilermakers in a letter to Whitman.

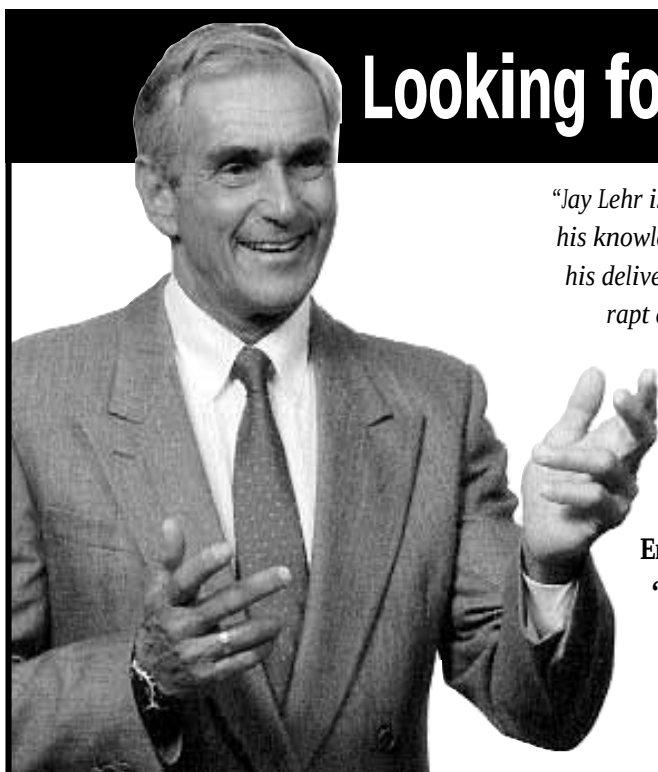
Some industry representatives expressed regret the revisions were not more specific. "The central question is what level of maintenance activity triggers the need for New Source Review," said Scott Segal, director of the Electric Reliability Coordinating Council. "Today's package just offers options regarding maintenance."

EEI Executive Director Quin Shea was similarly concerned regarding current and future federal litigation. "We are pleased that EPA is starting to move the ball down the field on an issue that has plagued us for years. But we're frustrated that the agency has stopped short of advancing a specific proposal that would remove the perpetual threat of litigation hanging over the heads of power plant operators."

EPA General Counsel Bill Wehrum confirmed industry fears regarding ongoing litigation. "We are absolutely dead-set committed to the existing lawsuits that we have filed," said Wehrum. "There is no question that those power plants are liable under the law that existed when they broke it."

Plant owners are not the only ones who will have to contend with ongoing and future litigation. EPA itself will likely be sued over the new standards, as nine northeastern states have announced they will sue to preserve EPA's prior NSR interpretation.

James M. Taylor is managing editor of Environment & Climate News.



Looking for an outstanding speaker?

"Jay Lehr is an outstanding communicator, his knowledge of his subject is superb and his delivery is very engaging. He held the rapt attention of our audience."

C. BOOTH WALLENTINE
UTAH FARM BUREAU FEDERATION

**Engagements are scheduled on a
"first come, first served" basis,
so call 312/377-4000 today to
schedule Dr. Jay Lehr
to keynote your next event!**

Who is Dr. Jay Lehr?

Dr. Jay Lehr is an internationally renowned motivational speaker, scientist, and author. He is considered the world's leading authority on groundwater hydrology. Dr. Lehr is currently Senior Scientist with Environmental Education Enterprises and Science Director for The Heartland Institute, a nonprofit think tank based in Chicago, Illinois.

Help us build a grassroots movement for environment reform!

Please complete and return one of the forms below to receive *Environment & Climate News* for free for one year. Urge your friends and colleagues to fill out the other forms!

Return this entire form today for a FREE subscription to Environment & Climate News!

Please check ONLY ONE section:

BUSINESS LEADERS

Which of the following most accurately describes your position:

- ☐ Owner or principal
- ☐ Public relations/marketing
- ☐ Legal/government affairs

PUBLIC OFFICIALS

Were you:

- ☐ Elected
- ☐ Appointed

On what government level do you serve:

- ☐ Federal
- ☐ State
- ☐ Local or Regional

ACTIVISTS

Which of the following most accurately describes your interest in environment issues:

- ☐ Landowner
- ☐ Environmentalist
- ☐ Lobbyist
- ☐ Public policy analyst

MEDIA

Are you a journalist who reports or writes about environment issues?

- ☐ Yes
- ☐ No

Do you work for:

- ☐ print media
- ☐ electronic media
- ☐ both

TEACHER

Return by Mail to: The Heartland Institute, 19 S. LaSalle St. #903, Chicago, IL 60603 or fax this entire form to 312/377-5000.

The information you have provided will be kept strictly confidential. The Heartland Institute from time to time offers its mailing list to organizations whose goals are similar to ours. If you prefer not to be contacted by such groups, please check here.

Signature Required Below



NAME

TITLE

BUSINESS

STREET

CITY/STATE/ZIP

PHONE NUMBER

Return this entire form today for a FREE subscription to Environment & Climate News!

Please check ONLY ONE section:

BUSINESS LEADERS

Which of the following most accurately describes your position:

- ☐ Owner or principal
- ☐ Public relations/marketing
- ☐ Legal/government affairs

PUBLIC OFFICIALS

Were you:

- ☐ Elected
- ☐ Appointed

On what government level do you serve:

- ☐ Federal
- ☐ State
- ☐ Local or Regional

ACTIVISTS

Which of the following most accurately describes your interest in environment issues:

- ☐ Landowner
- ☐ Environmentalist
- ☐ Lobbyist
- ☐ Public policy analyst

MEDIA

Are you a journalist who reports or writes about environment issues?

- ☐ Yes
- ☐ No

Do you work for:

- ☐ print media
- ☐ electronic media
- ☐ both

TEACHER

Return by Mail to: The Heartland Institute, 19 S. LaSalle St. #903, Chicago, IL 60603 or fax this entire form to 312/377-5000.

The information you have provided will be kept strictly confidential. The Heartland Institute from time to time offers its mailing list to organizations whose goals are similar to ours. If you prefer not to be contacted by such groups, please check here.

Signature Required Below



NAME

TITLE

BUSINESS

STREET

CITY/STATE/ZIP

PHONE NUMBER

Return this entire form today for a FREE subscription to Environment & Climate News!

Please check ONLY ONE section:

BUSINESS LEADERS

Which of the following most accurately describes your position:

- ☐ Owner or principal
- ☐ Public relations/marketing
- ☐ Legal/government affairs

PUBLIC OFFICIALS

Were you:

- ☐ Elected
- ☐ Appointed

On what government level do you serve:

- ☐ Federal
- ☐ State
- ☐ Local or Regional

ACTIVISTS

Which of the following most accurately describes your interest in environment issues:

- ☐ Landowner
- ☐ Environmentalist
- ☐ Lobbyist
- ☐ Public policy analyst

MEDIA

Are you a journalist who reports or writes about environment issues?

- ☐ Yes
- ☐ No

Do you work for:

- ☐ print media
- ☐ electronic media
- ☐ both

TEACHER

Return by Mail to: The Heartland Institute, 19 S. LaSalle St. #903, Chicago, IL 60603 or fax this entire form to 312/377-5000.

The information you have provided will be kept strictly confidential. The Heartland Institute from time to time offers its mailing list to organizations whose goals are similar to ours. If you prefer not to be contacted by such groups, please check here.

Signature Required Below



NAME

TITLE

BUSINESS

STREET

CITY/STATE/ZIP

PHONE NUMBER

SOOT continued from page 1

Published in the September 27 issue of the journal *Science*, the report—by researchers from NASA's Goddard Institute for Space Studies—suggests that by absorbing sunlight and altering weather patterns, light-absorbing carbon-based particles could have nearly as much impact on global warming as carbon dioxide, a greenhouse gas long considered the primary culprit in global warming. The soot particles are produced by older diesel engines, cooking fires, and other sources.

New Perspectives

In a "Perspectives" article published with the NASA Goddard paper, atmospheric researchers at the Georgia Institute of Technology describe some of the policy implications of the new findings. Among them:

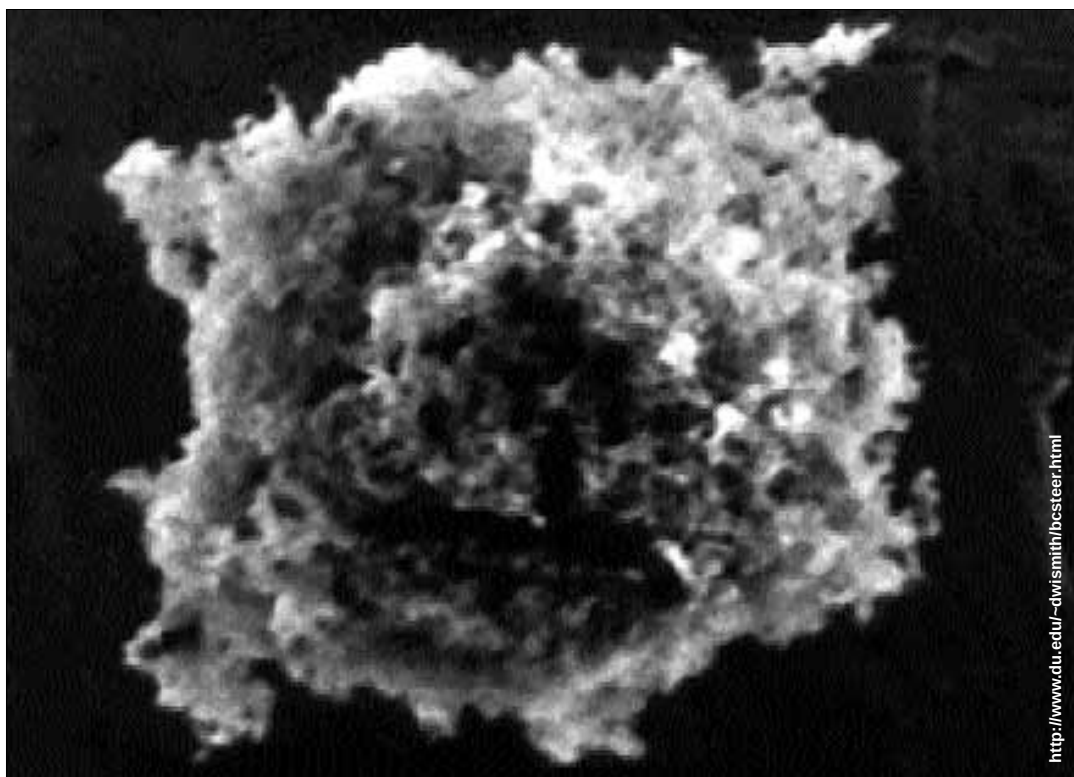
- Because black carbon particles have relatively short atmospheric lifetimes, successful control efforts could curb their effects in a matter of months or years. Carbon dioxide remains in the atmosphere for hundreds of years, meaning control efforts couldn't affect global warming for generations.
- Soot emissions come primarily from developing nations such as India and China. If these emissions do in fact play a large role in global warming, that could shift pressure for environmental control to those nations. Industrialized nations in North America and Europe are responsible for the bulk of carbon dioxide emissions.
- Efforts to control soot may also bring immediate improvements in human health, since the small particles thought to be most active in affecting climate are the same PM 2.5 particles that cause respiratory distress when trapped deep in the lungs.
- Little is known about the worldwide impact of soot emissions or even how to measure them properly. Significant new research will be needed before the role of black carbon emissions can be reliably assessed.

"[T]he report ... suggests that by absorbing sunlight and altering weather patterns, light-absorbing carbon-based particles could have nearly as much impact on global warming as carbon dioxide."

"The study reported this week in *Science* really raises some important policy issues regarding soot," said Michael Bergin, an assistant professor in Georgia Tech's School of Earth and Atmospheric Sciences and coauthor of the "Perspectives" article. "In the past, researchers have felt that soot didn't really have a significant warming effect. But as we've learned more about the amount of black carbon emitted by countries like China and India, it appears now that soot could have important climatic effects, and that these effects may be almost as much as those of carbon dioxide."

Low-Hanging Fruit

"This could be 'low-hanging fruit' in trying to deal with the anthropogenic (human-caused) effects on the climate," Bergin noted. "From a policy standpoint, the payoff for controlling soot could be on the scale of years rather than centuries."



<http://www.du.edu/~dwmismit/bcsteer.html>

Black carbon creates its warming effect through an entirely different mechanism than greenhouse gases, which act as an insulating blanket to keep heat within the Earth's atmosphere. Black carbon, by contrast, absorbs light from the sun, converting that to heat. The effect varies, depending upon what is beneath the carbon particles.

If a light-colored surface lies below the carbon particles, the heating effect is increased as incoming photons heat the particles on their way toward the surface, then heat them again as they reflect off the land or clouds. The particles are also involved in cloud formation, which affects precipitation patterns. Those weather changes, seen in regions of China and India with large soot emissions, may in turn affect the global climate.

"There are a lot of possible atmospheric effects from soot," Bergin said. "We really don't yet understand all the feedback cycles involved."

Soot Uncertainties

In fact, researchers are just beginning to learn about black carbon soot—and even to agree on what it is. Formed by the incomplete combustion from diesel engines, cooking fires, and coal burning, black carbon soot can take many different forms, from spherical particles to chain agglomerates.

"The nature of the particles and how they absorb light could be different," Bergin explained. "So one gram of soot from one part of the world could be different from a gram of soot from another part of the world. We are really at the beginning of trying to understand the influences of soot on climate. Right now, there is a great deal of uncertainty in any estimate of the climatological impact of soot."

A key uncertainty is the amount of soot going into the atmosphere. Localized studies in China and India, where crops wastes are burned for heating and cooking, show very high levels. In developed nations, elevated soot levels are found

Bush Administration Will Pursue Soot Control

John Marburger, chief science advisor to President George W. Bush, told a news conference on November 25 that research into the effects of soot and ways to control soot emissions will be important parts of the administration's global warming policy.

"You will see more emphasis on things like soot and other components of greenhouse gases," Marburger said. According to a Reuters news report, other administration officials at the news conference said it was too early in the budget-writing process to say how much funding the administration would seek for climate change in fiscal 2004.

According to a November 28 Knight-Ridder news story by Seth Borenstein,

Marburger said targeting soot makes sense: Because soot remains suspended in air only for days, reducing it could immediately slash its contribution to global warming. Carbon dioxide, on the other hand, stays in the air about a century, so reducing its emissions would take much longer to show results.

Also according to Borenstein, the Bush administration in its fiscal 2003 budget message targeted soot as a bigger menace to public health and air pollution than smog. "The administration also has upheld a Clinton rule mandating cleaner diesel engines and is proposing a voluntary cleanup of off-road diesel engines, such as those used in construction."

in urban areas—which have often been excluded from climate studies to avoid confusing global climate change with the local "urban heat island" effect.

Because such nations as China and India produce so much black carbon, a new focus on this pollutant could shift control responsibility to the developing nations. Controlling soot emissions would include developing more efficient combustion techniques, both for biomass burning and diesel engines, Bergin noted.

Improved Climate Models?

The *Science* report calls into question the accuracy of global climate change models, which have not considered the effects of black carbon.

"This creates some opportunities for climate modelers to revise their approaches and to add a potentially important anthropogenic climate forcing agent to their models," said Bergin. "We now have an opportunity to include more of the important anthropogenic effects. It could be that there

are other feedback cycles in the global climate system that we don't understand."

Controlling soot could have an impact broader than global climate change. The tiny particles that appear to be most active in absorbing radiation are of the size implicated in causing human health effects because they can lodge deeply in the lungs.

"These health impacts could make it politically much easier for policy-makers to enact the kinds of controls needed," said Bergin. "The control strategy could provide a double-whammy by increasing the health of both human beings and the environment."

S. Fred Singer, professor emeritus of environmental sciences at the University of Virginia and president of the Science and Environmental Policy Project, shares his thoughts on environment and climate news stories of the month. Singer's The Week That Was columns can be found at <http://www.sepp.org>.

ELECTION continued from page 1

variation and once again with some notable exceptions, have tended to be more supportive of free-market approaches than their Democratic counterparts. Examples include President George W. Bush's opposition to the Kyoto Protocol on global warming, his Healthy Forests Initiative, and his support for New Source Review reform and cost-benefit analysis.

Democrats, in contrast, remain wedded to the command-and-control mentality of the past, exaggerating environmental hazards and supporting ever-stricter regulations on manufacturers, car and truck owners, and landowners. The biggest environmental groups on the scene, such as the Natural Resources Defense Council and the Sierra Club, overwhelmingly support Democrats over Republicans in their political advocacy efforts, which are considerable.

Thus, Republican victories at the national and state level can be considered a referendum of sorts on two different approaches to protecting the environment: One, the Democrat approach, focused on scare tactics and anti-market rhetoric; the other, the Republican approach, supporting sound science and market-based approaches to environment issues.

Republican Landslide

Historically, off-year elections have delivered a beating to the President's party, not just at the federal level, but at the state level as well. Since 1938, the President's party has lost an average of more than 350 seats in off-year elections. In 2002, however, Republicans *gained* more than 200 seats in state legislatures.

The GOP's gains were not disproportionately achieved in the states where President Bush focused his campaign efforts:

- In Texas, Republicans gained control of the House of Representatives for the first time since 1870. For the first time since the post-Civil War Reconstruction Era, Republicans now control the

governor's mansion and the state legislature.

- Republicans now control the South Carolina governorship and the state legislature for the first time since Reconstruction.
- In Arizona, Republicans assumed control of what had been a deadlocked Senate.
- In Colorado, Republicans took back control of the state senate, which Democrats won just two years ago.
- In Missouri, Republicans gained control of the House of Representatives for the first time since 1955.
- In Wisconsin, Republicans gained control of the state senate (though they lost the governorship).
- In the House of Representatives in both Indiana and North Carolina, Republicans forged a tie from what had previously been Democratic control.

The only noteworthy Democratic gains occurred in Illinois and the Oregon senate. The success of Illinois Democrats was largely expected after Republican candidates, tarnished by scandal, ran largely issue-less campaigns.

"Republicans could end up with a majority of all seats for the first time since 1952," noted a press release issued by the National Conference of State Legislatures. Roughly 7,400 elected state legislators serve the 50 states.

Before the November elections, Democrats controlled 51 percent of the nation's state legislative seats. But Republicans now control 21 state legislatures, as opposed to just 17 before the elections. Democrats control 17 legislatures, as opposed to 18 before the elections. Eleven states have split party control; the Nebraska unicameral legislature is nonpartisan.

Victory for Free Markets

The failure of command-and-control environmentalists to prevail at the federal level in 2000 had forced them to take their campaigns to the states. Republican victories at the state level, therefore, are significant not only for what they reflected about Americans' preferred approach

to environment issues, but also for what they portend regarding the future of the environmental movement.

Bills regarding greenhouse gas emissions, land use restrictions, alternative energy mandates, and even car and truck fuel economy are being advanced in many state legislatures, part of a national strategy coordinated by large liberal grantmakers and Washington-based environmental advocacy groups. The Bush administration has largely opposed such initiatives at the federal level, but prior to November 5, the Left was plainly gaining ground in the state arena.

The November 2002 elections strengthened the position of free-market environmentalists to defend against such initiatives ... and also served notice to legislators of both parties that the backers of command-and-control environmentalism will be punished in future elections.

"In the November 2002 elections, voters proved the rhetoric and agenda of radical anti-market environmentalists doesn't win elections. That may be the encouragement Bush needs to steer the nation back to common-sense environmentalism."

It is hardly surprising that the Republicans' strength was especially evident in the nation's heartland, where most legislatures changed from Democratic to Republican control. Here, citizens have been sorely rankled by federal intervention in local environment issues, and the alarmist and anti-business rhetoric of the liberal national environmental groups rang hollow. What was once the birthplace of agrarian economic populism may be turning into the stronghold of free-market environmental populism.

Impact at the Federal Level, Too

Numbers on the national level are not as striking as at the state level, but the impact on national environmental policy could be just as dramatic. Republicans picked up just a few seats in the House of Representatives and Senate. Nevertheless, the November elections marked the first time in modern history that the President's party made gains in both legislative houses—taking full control of one in the process—during the President's first off-year election.

After the defection of James Jeffords (I-Vermont) from the Republican Party, Democratic control of the Senate's leadership led to the defeat of such free-market initiatives as resource recovery in the Arctic National Wildlife Refuge, even when a bipartisan Senate majority supported the initiative. While command-and-control interests retain the power of the filibuster, a filibuster is a poor substitute for the power of chairmanships and the Senate majority leadership post.

With Tom Daschle (D-South Dakota) removed from his position as Senate Majority Leader, market-averse environmentalists are wishing they had cut deals on logging, the energy bill, and a large assortment of other environmental issues while they had the power to do so.

New Chairs Support Free-Market Approaches

Before Jeffords' defection during the most recent legislative session, Republican control of the Senate gave New Hampshire's Bob Smith the chairmanship of the Senate Environment and Public Works Committee. Smith was frequently sympathetic to command-and-control environmental positions. Things changed little when Jeffords was named chair after Democrats gained control of the Senate. The League of Conservation Voters has praised both Smith and Jeffords for carrying its command-and-control agenda.

But Smith is no longer in the Senate, and Oklahoma's James Inhofe has assumed chairmanship of the committee and has promised to inject the real-world experiences of Western and Heartland Americans into the formulation of federal environment policy. Inhofe's Web site offers a synopsis of the senator's environmental priorities:

"Refusing to be railroaded by environmental proposals and schemes that merely sound good on the surface, he asks tough questions. What are the true benefits vs. the true costs? Is it based on sound science? Will it work? How will it affect property owners, local communities, ordinary citizens, and taxpayers? Is the policy fiscally responsible?"

A similar transformation has occurred in the Senate Energy and Natural Resources Committee. New Mexico's Pete Domenici has been appointed to chair the committee, and he also promises the first-hand experiences of Westerners will be carefully heeded in upcoming energy and environmental debates.

Domenici favors removing the yoke of restrictive regulation from energy producers, and he supports a balanced approach to national energy policy. A supporter of resource recovery in the Arctic National Wildlife Refuge, Domenici has promised the full Senate will finally have a chance to vote either for or against ANWR resource recovery.

What Will Bush Do?

Reckless anti-market environmental proposals in many states will likely be shelved following the Republican victories. At the federal level, much will depend on how the Bush administration reacts to GOP gains.

When Republicans controlled the Senate during the first half of the past legislative session, Bush frequently staked out free-market positions during the initial round of debate, but then compromised when faced with political pressure from the Left. The most high-profile example took place during the arsenic debate in the spring of 2001. With Bush unwilling to expend valuable political capital on any but the most important issues, such as Kyoto and ANWR, the free-market agenda often lost out despite the Republican majority.

While Bush's past should give free-market environmentalists pause, the 108th session of Congress may be different. In the November 2002 elections, voters proved the rhetoric and agenda of radical anti-market environmentalists doesn't win elections. That may be the encouragement Bush needs to steer the nation back to common-sense environmentalism.

James M. Taylor is managing editor of Environment & Climate News.



School Reform News

**The national newspaper
for school reformers**

"School Reform News is a reliable, well-written source of information on the exploding movement to reconstruct our educational system."

Milton Friedman
Nobel laureate

Subscribe today for just \$24 for 11 issues!

Sign up online at www.heartland.org,
call 312.377.4000, or write to:

The Heartland Institute
19 South LaSalle, Suite 903
Chicago, IL 60603

Water: Our World's Most Valuable Resource

BOOK REVIEW BY JAY LEHR

Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters

by Robert Glennon

Island Press, September 2002, 304 pages cloth

Water Follies is an amazing book. If you love history, if you are fascinated by water and hydrology, if you are a lover of wonderful people profiles and descriptions of comical government chaos, or if you just like a good read by a marvelous writer with an exhaustive obsession for detailed research, this book is an award winner.

But if you believe water is an economic mineral that should flow toward its greatest resource value, if you believe limited government and maximum individual freedom make the most sense, and if you rooted for the slaves when they squared off against the lions in the Roman Coliseum, you may find this book disturbing.

Nevertheless, *Water Follies* is clearly the best book on the history of our nation's water supply since the late Mark Riessen's *Cadillac Desert*, and for my money it surpasses even that classic history of western water development.

Having openly expressed my adulation for this work, I must explain that I nevertheless disagree with nearly 80 percent of the author's opinions, editorial comments, and drawn conclusions. Glennon writes, "Lawyers sometimes joke that a reasonable argument is one that you can make while keeping a straight face." Well, I could not even read some of his conclusions and keep a straight face.

"Glennon's manifesto is not comprised of short clever quips that are easier said than done, but of comprehensive, thoughtful solutions that take into account the competing interests of all stakeholders, as well as the sound economics of a democratic society."

The Worth of Water

Glennon opens his second chapter, "The Worth of Water in the United States," with a wonderful quotation of Herbert Hoover:

"True conservation of water is not the prevention of its use. Every drop of water that runs to the sea without yielding its full commercial returns to the nation is an economic waste."

It quickly becomes obvious Glennon thinks Hoover's words are ridiculous. At the opening of Chapter 6, Glennon quotes Toni Morrison, a socialist Princeton University professor (admittedly my opinion, but I did attend that esteemed school, and I follow her academic career closely). She said: "All water has a perfect memory and is forever trying to get back to where it was." In other words, preserve and conserve is the way to manage water, as though it had a heart and soul.

These seemingly profound words are apparently viewed with reverence by the author, when in fact they ultimately ignore the nation's need for water and the success of man's residence on the

planet. The bottom line for Glennon is that groundwater is best valued in support of plant life on the banks of surface water streams and should not be pumped for human use if the result is a significant reduction in flow winding its way to the sea.

Others often use the same argument in an effort to dissuade civilization from harvesting any number of its resources, be they fossil fuels, precious metals, industrial minerals, or timber. However, water, like timber, is a renewable resource. It can and must be used for human good and social welfare.

Glennon tells a dozen very detailed stories of wasteful water management around the United States. His descriptions of the case histories are accurate and interesting, but he commonly draws the wrong conclusion for what might have been, or could be in the future.

The Santa Cruz River

His first case history hit home for this writer because it describes the Santa Cruz River in Tucson, Arizona, where I attended graduate school. He bemoans the fact that the Santa Cruz River is now just an ephemeral river flowing only in response to rainfall. This actually has been the case for most of the last century as a result of Tucson's modest population growth in the early 20th century. Groundwater pumping in that period lowered the water table below the base of the Santa Cruz.

Glennon would have sacrificed the ability of people to survive in this desert in order to maintain a continuous trickle of water in this shallow stream. In fairness to him, however, it must be said that vast quantities of this water were and still are used to produce agricultural products that are economical only because of government subsidies. In all cases, everything Arizona grows in the desert can be bought cheaper in surrounding states with more reasonable farming environments.

This story really struck a chord for me. When I left the East Coast for graduate school at the University of Arizona in Tucson, my inability to read map symbols led me to drag my little water skiing boat all the way across the country only to find the river was dry. I learned quickly how to spot an ephemeral river on a map after that trip.

Edwards Aquifer Follies

One of Glennon's case studies is the Edwards Aquifer below San Antonio, Texas. The Edwards is one of the world's most prolific aquifers. It is essentially a bottomless well for the surrounding community. It is more than 2,000 feet deep with limitless flow. Glennon, however, sides with those who would sacrifice the use of the entire underground reservoir if using the reservoir means eliminating its overflow at one surface location that keeps flowing a couple of small streams that are home to two rare salamanders.

I give him credit for supporting his argument with amusing stories of waste. He tells of a couple of entrepreneurs who drilled one of America's most prolific wells into the Edwards Aquifer, yielding 43 million gallons of water a day. When they showed they could maintain a fish farm containing 750,000 catfish with the well, the city gave them \$9 million for most of their water rights and a \$200,000-a-year lease for the remainder of the rights.

Living Freely, or Not!

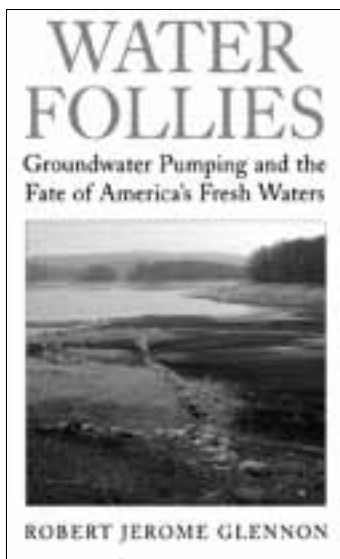
Glennon shows his politics more transparently when telling the story of California's Cosumnes River near Sacramento. Here he describes the efforts of the Nature Conservancy to join other environmental groups in an effort to block development. Glennon writes,

"Despite the efforts of The Nature Conservancy, its partners, and the U.C. Davis scientists, the Cosumnes faces an uncertain future because of groundwater pumping that supports continuing suburban sprawl. In the last twenty years, a large portion of the Central Valley has begun to support a new crop—subdivisions. The valley's population, currently about 5 million, is expected to double by 2020, partly from folks fleeing the San Francisco region in search of affordable housing."

Glennon goes on to describe all the unfortunate plans developers have to allow Northern California residents to escape urban areas into the country where myriad impacts on nature would occur. Given that the Constitution respects our freedom to live where we wish, and that thus far people occupy only 4 percent of the U.S. land mass, this chapter is not one of the book's strongest.

Indeed, the last time I checked, one of the reasons immigrants continue to flock to the U.S. is because our Constitution guarantees each of us the right to move about our country freely and sink roots where we wish.

Wealthy liberals, who commonly have achieved their own utopian homestead, work feverishly to prevent others from gaining theirs. The many sto-



ries of the socialist city of Portland, Oregon give witness to this grand experiment in central planning where housing costs have nearly tripled in recent years and blue collar Portland workers must commute as much as 40 miles in order to obtain affordable housing while retaining jobs in the city.

The Story of French Fries

Glennon tells the story of McDonald's founder Ray Kroc's discovery that water content determines french fry perfection, that irrigation determines

WATER continued on page 18

www.AmeriCanGOTV.com

"A step-by-step manual, providing sound, practical, and proven techniques, to develop a winning campaign."

"a real political campaign resource" ★★★★★

"A must read whether you are running for office or simply interested in the American political process."
Albany, NY

THE CAMPAIGN MANUAL

6th Edition 2002 by S. J. Guzzetta

"Only someone with Mr. Guzzetta's vast experience could write a manual this comprehensive. Not theory, or a plethora of ideas, but one based on actual campaign experience developed where it counts - in the trenches managing over 35 campaigns and consulting on over 200 more from coast to coast, at all levels. Written in a narrative style, it is very easy to understand."

Mary Mettlin
Former Chief of Staff, Republican National Committee

Printed in USA • 320 • 160 pp • 10 1/2" x 7 1/2"

Perfect Bound - soft cover - \$ 79.95 US
Case Bound, including dust cover - \$ 98.95 US
Plus \$3.95 shipping and handling and taxes where applicable.

Detailed information at:
www.AmeriCanGOTV.com/thecampaignmanual

GOTV Campaign Optimizer

Campaign Management Software

"The Winner's Edge"

"...the only Campaign Management Software you will ever need!"

Based on the campaign principles taught by S.J. Guzzetta in *The Campaign Manual*, newly revised 6th Edition, 2002

Download your FREE Demonstration Copy today!
www.AmeriCanGOTV.com/campaignoptimizer

ORDER BY PHONE, MAIL OR ON-LINE!

1.866.633.GOTV (4688)

www.AmeriCanGOTV.com • orderdesk@AmeriCanGOTV.com

WATER continued from page 1

its potato parent's perfect shape and length, and that temperature and humidity determine its capacity for long-term storage. At the story's end, he tries to instill fear that Minnesota's growing frozen french fry industry "may" ultimately endanger the brown trout in the Straight River, which lies above the aquifer supplying the industry's irrigation water in Minnesota. Glennon admits the industry has been fully responsive to all environmental concerns. Nevertheless, he sides with the trout, suggesting America ought to get used to less-perfect french fries of varying color in order to minimize irrigation.

Coal Slurry Pipelines

Another case study is of Peabody Energy Company's Arizona Coal Slurry Pipeline. The pipeline extends 273 miles from Arizona's Black Mesa low sulfur anthracite deposits to the Mohave Generating Station in Laughlin, Nevada.

Coal mining has generated 750 jobs paying a \$45,000 average annual salary in an area of 58 percent unemployment and a median income below \$6,000. Most Black Mesa workers are Navajo because the mine is near the Navajo town of Kayenta. The mine yields \$7 million annually in royalties for the Hopi reservation on which the coal resides. This amounts to 80 percent of the Hopi tribal government's annual revenue.

The coal slurry pipeline uses 1.3 billion gallons of groundwater a year. Although no direct environmental consequence for this operation has been proven, Glennon believes the pipeline should be shut down in favor of uneconomical overland rail transport. A pattern begins to emerge: Glennon is more a preservationist than a conservationist.

Mining for Gold

Glennon's description of gold mining in modern-day Nevada is similarly one-sided. Ninety percent of the state's 2.1 million residents live in either Las Vegas or Reno, and Nevadans earn an average of \$30,000 per year. Among the 200,000 residents spread over the remaining 90,000 square miles are gold miners whose average salary is \$52,000.

While movies still illustrate gold mining as an

independent prospector traveling into the mountains with a pickax in hand or panning for gold nuggets in a stream, gold today comes from open pit mines that produce little more than an ounce of gold from 50 tons of ore.

Glennon describes as mammoth "de-watering" a new mine that uses a small amount of water in processing the ore, disposing of the rest of the water by reinjecting it into the aquifer whence it came, selling some for irrigation water,

"[W]ater, like timber, is a renewable resource. It can and must be used for human good and social welfare."

FOR MORE INFORMATION

WWW Robert Glennon's *Water Follies: Groundwater Pumping and the Fate of America's Fresh Waters* is available for \$17.50 through Amazon.com. Point your Web browser to <http://www.amazon.com/exec/obidos/ASIN/1559632232/theheartlandinst>.

and transporting the remainder 20 miles to the nearest river. Again, while no environmental consequence has occurred, Glennon relies on the prediction of hydrologists in the employ of environmental groups and the government to say that significant environmental harm will occur within 25 years after the mine closes.

Oysters and Aphrodisiacs

With Appalachicola, Florida as his setting, 80 miles southwest of Tallahassee, Glennon explains the hydrological aspects of the oyster business. This includes its dependence on fresh water flows coming downriver into estuaries where high salinity encourages saltwater predators to reduce oyster yields.

The many demands of agriculture and municipalities in both Georgia and Florida within the

Appalachicola watershed make the future of oystering anything but secure. Here he draws parallels to the conflicting demands made on the Colorado River by Arizona and California, which nearly resulted in armed conflict and is still not totally settled after almost a century.

Wisely, Glennon draws no conclusion on this fascinating southeastern conflict, but between the lines he is clearly questioning Herbert Hoover's statement on maximizing the economic value of water. He definitely proves that directing water to "yield its full commercial return to the nation" will often require the wisdom of Solomon.

The Grand Canyon

In a later chapter, Glennon appears to support the National Park Service's plan to make it more difficult to visit the Grand Canyon—if not outright suppress the number of human visits—in order to preserve its natural beauty. At the Grand Canyon there are many groups in conflict with one another, and not just the obvious ones. Future development has public agency battling public agency, environmental groups disagreeing with one another, and varying interests competing among private enterprise.

The most intelligent and creative group described by the author is the Canyon Forest Village Corporation. The corporation is determined to bring in more people to live near the canyon, but without harming it. It's willing to pay \$20,000 an acre-foot to bring water into the area by pipeline and truck so as not to tamper with the Colorado watershed. Imperial Valley farmers in California pay just \$13.50 for each acre-foot (325,000 gallons) they take from the Colorado River. It gives one a real grasp on the value of water.

(Even so, \$20,000 per acre-foot is just six cents a gallon ... and we are all paying at least a dollar a gallon when we purchase the cheapest bottle of water in the supermarket. If we choose an upscale brand like Perrier, the price goes up to \$12 a gallon.)

Tragedy of the Commons

Glennon delivers a clear and accurate description, in his last chapter, of the "Tragedy of the Commons" made popular by Garrett Hardin many

decades ago. With explicit and poignant examples, Glennon explains the fallacy of everyone sharing in a resource without ownership—the downfall of all socialist systems. After correctly nailing failed efforts to socialize a resource, Glennon believes he has developed enough insight on the nation's water problems to create an eight-point manifesto aimed at bringing our resources into balance with our needs.

Amazing as it may seem, he has it all right. Glennon's manifesto is not comprised of short clever quips that are easier said than done, but of comprehensive, thoughtful solutions that take into account the competing interests of all stakeholders, as well as the sound economics of a democratic society. The following is an example from his discourse on the role of state government.

"States should encourage water conservation through pumping taxes on groundwater. Such taxes must be scheduled in a way that is sensitive to the economies of rural regions and that gives groundwater pumpers adequate notice that they will have to pay more for the privilege of pumping. Pumping taxes that increase water rates on farmers raise other issues as well—of equity and history. It is unreasonable to expect farmers suddenly to pay much higher water rates. Increases need to be phased in over time so that farmers can adjust acreage, cropping selection, and other variables necessary to transition from low-value crops to ones with higher economic value."

Buy this book, read this book, make Robert Glennon rich. You will be highly rewarded. Every fact, beautifully woven into an historical tapestry, is accurate, even as nearly all of his opinions are contrary to my own and, it must be said, to the considered opinions of the many economists who are studying the use of markets to allocate water. Honest debate, though, always benefits the quest to resolve disputes over our world's most valuable natural resource.

Dr. Jay Lehr is science director for The Heartland Institute. He received the nation's first Ph.D. in hydrology and served as executive director of the National Water Well Association and the Association of Groundwater Scientists and Engineers.

E&CN is a tool use it!

- Contact an advertiser, buy its product or service ... and be sure to say you saw the ad in E&CN
- Clip (or photocopy) an E&CN article and send it to your state representative or Congressman with a personal note
- Cite an E&CN article in a letter to the editor or article for your local newspaper
- Quote E&CN in testimony before a state or local government hearing, or during a speech to your local service group
- Discuss an E&CN article with your school-age child ... and his or her teacher

After you've used E&CN as a tool in your personal campaign for sound-science, common-sense approaches to environment issues, please let us know! Your story could encourage an advertiser to join our effort, or a grant-maker to help finance our growing circulation.

To report your successes with E&CN, write
Diane Carol Bast, Editor
Environment & Climate News
 The Heartland Institute
 19 South LaSalle Street #903
 Chicago, IL 60603
[email dbast@heartland.org](mailto:dbast@heartland.org)



You've read about it. Now ...

Get Active!

Become a grassroots activist for sound science and free-market environmentalism.

People across the U.S. are coming together to form a new environmental movement based on sound science and free markets. This movement consists of hundreds of thousands of people just like you, who believe in common-sense solutions, respect for property rights, and economic progress as well as a safe and clean environment.

Public policies will change only when elected officials hear from thousands of people who want change. It's up to you to speak out. Starting today, you can write one letter a week to an elected official or your local newspaper. Together, we can show there is public support for common-sense environmentalism.

✓ Write to your elected officials

Find out who your Senators, Congressman, state senator, and state representative are by visiting www.getactive.atr.org, and then contact them by email, phone, fax, or letter. Send an article from this issue of *Environment & Climate News* along with your letter, or quote from one of the articles. Tell them you oppose public policies based on junk science.

✓ Share this information with friends, neighbors, and coworkers

Use the reply form on **page 14** to give your friends and neighbors free subscriptions to *Environment & Climate News*. Urge them to get active, too.

✓ Join a state or local organization that shares your values

Visit Heartland's Web site at www.heartland.org and find the think tank or advocacy group in your state that supports free-market ideas. Learn about their work and become a member.

✓ Contact your local media

Point out junk science and anti-market bias in letters to your daily newspaper. Brief letters—just three or four sentences—that refer in the first sentence to an article in a recent issue have the best chance of being published. They take only a few minutes to write and submit!

Support The Heartland Institute

Join 1,500 members and donors of The Heartland Institute so we can continue to distribute *Environment & Climate News* and our other publications for free to

elected officials and tens of thousands of potential grassroots activists. Become a member online at www.heartland.org.

The Heartland Institute
The power of ideas

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Environment & Climate News

**Want more customers,
sales, and profits?**



Then you need to advertise your service or product in the next issue of *Environment & Climate News*!

Once you've had a chance to review our media kit, we're confident you'll agree that *Environment & Climate News* is the perfect place to reach:

**Landowners
Loggers
Elected Officials
Foresters
Farmers
Miners
Grassroots activists
Engineers
and more!!**

3 ads for just \$1,800*

1st ad \$1,200 · 2nd ad FREE · 3rd ad 1/2 price (\$600)

Where else can you reach more than 26,000 readers for just 5 cents each!

Call today, offer ends February 28th

To request a media kit,

please call Nikki at

312.377.4000, or send email

to nikki@heartland.org

*based on a 1/4 page ad